BEITRÄGE ZUR SÜDASIEN-FORSCHUNG
SÜDASIEN-INSTITUT
UNIVERSITÄT HEIDELBERG

27

TAI-KHAMTI PHONOLOGY AND VOCABULARY

BY

ALFONS WEIDERT

FRANZ STEINER VERLAG · WIESBADEN

Digitized by the Internet Archive
in 2014

https://archive.org/details/taikhamtiphonolo00weid

ALFONS WEIDERT

TAI-KHAMTI PHONOLOGY AND VOCABULARY

BEITRÄGE ZUR SÜDASIENFORSCHUNG
SÜDASIEN - INSTITUT
UNIVERSITÄT HEIDELBERG

BAND 27

FRANZ STEINER VERLAG · WIESBADEN
1977

TAI-KHAMTI PHONOLOGY AND VOCABULARY

BY

ALFONS WEIDERT

FRANZ STEINER VERLAG · WIESBADEN
1977

CIP-Kurztitelaufnahme der Deutschen Bibliothek

Weidert, Alfons
Tai-Khamti phonology and vocabulary. – 1. Aufl. –
Wiesbaden: Steiner, 1977.

(Beiträge zur Südasienforschung; Bd. 27)
ISBN 3-515-02582-0

Alle Rechte vorbehalten

Ohne ausdrückliche Genehmigung des Verlages ist es auch nicht gestattet, einzelne Teile des Werkes auf photomechanischem Wege (Photokopie, Mikrokopie usw.) zu vervielfältigen. · Gedruckt mit Unterstützung der Gesellschaft von Freunden und Förderern der Universität München (Münchner Universitätsgesellschaft) e. V. · © 1977 by Franz Steiner Verlag GmbH, Wiesbaden · Druck: Offsetdruckerei Wolf, Heppenheim

Printed in Germany

ACKNOWLEDGMENTS

The present phonological analysis and vocabulary is based on the speech of two persons. To Mrs. Khalayna Namchoom and Mr. Chau Mahala Manpoong my sincere thanks are due for supplying me with all monosyllabic words they were able to find during our fieldwork sessions. The word material was first collected in 1972 with the help of Mr. Manpoong and revised one year later by Mrs. Namchoom.

Dr. E. F. K. Koerner offered valuable suggestions on an earlier draft of this study.

I sincerely acknowledge the co-operation extended to me by Prof. Hermann Berger and Prof. Klaus Heger, both of Heidelberg university, who submitted their expert opinion of the present study to the publication commission of the South Asia Institute.

I am grateful to the South Asia Institute for accepting this essay in the Institute's publication series.

A. W.

TABLE OF CONTENTS

ACKNOWLEDGMENTS V

TAI KHAMTI PHONOLOGY 1
0. Introductory Observations 1
1. Hierarchical Levels 2
2. Phonological Extension Systems 4
3. Rules 6
4. Redundancy-free and Minimally-contrastive Representations 9
5. The Phoneme 10
6. Tai Khamti Phonology 13
6.1. Application of the REGULARIZATION Component 13
6.2. Redundancy-free Representations 17
6.3. Structural Description of the Phonology of Tai Khamti 17
7. Summary 22

FOOTNOTES 22
REFERENCES 26
TAI KHAMTI VOCABULARY 28-92

TAI KHAMTI PHONOLOGY

0. Introductory observations.

Ever since linguists have raised doubts on such seemingly well-founded phonological principles as biuniqueness and invariation, there has been a quest for detecting basic mechanisms through which the structure of a given language can be determined even in its most irregular aspects. In a good number of examples it has been shown with more or less accuracy how irregularities at the systematic phonetic level of the generative variety of phonological analysis can sometimes be traced back to (more) regular patterns at the systematic phonemic level. The principle I allude to is the 'phonological symmetry' principle and has been extensively treated in Sampson 1970. The dilemma we notice in the relevant examples of Chomsky & Halle 1968 and also in the Vietnamese example of Sampson turns out to be an obvious case of incongruence in the application of phonological symmetry principles and distinctive feature analysis on the basis of Jakobson et al. 1969. Though the approach adopted in general by generative analysts is felt to be intuitively correct, many analyses become obscured due to the hasty decision of relying on concepts which, based on the framework of distinctive feature theory, are not able to give essential insights into the respective problems and, furthermore, tend to result in pseudo-discussions not pertaining to the (language-specific) subject under investigation. Since I intend to restrict myself in this study to the discussion and an application of the principle of phonological symmetry, I shall not touch on the question of usefulness of the distinctive feature analysis; this could only be done in the context of a more extensive discussion of an analysis of phonological components. If our theoretical assumptions are to provide an interpretation of the concept of 'linguistically significant generalization' with reference to the phonological structure of a given language, it would seem necessary to me that considerations of 'phonological symmetry' should be based on the concept of PHONEME. It is not surprising to find that, whenever Chomsky & Halle discuss problems of symmetry, the relevant examples are cited in terms of phonemes or their phonetic manifestations[1]. Important in the discussion of such problems is the notion of 'phonological gap'[2], which can only be conceived with the help of minimally contrastive phonological units on any one of several levels within the phonological hi-

erarchy. After a superficial survey we notice that for a number of existing languages there is no more need to introduce phonological symmetry principles because the structures of such languages exhibit self-evident phonological symmetry. As for the languages that do not depict pattern symmetry at first sight, it seems as if an analytical component 'measuring' the degree of deviation from a hypothesized symmetrical pattern ought to be introduced. This will be the starting point of the analysis put forth here; the phonological description aimed at measuring such deviation shall be called a COMPONENTIAL analysis by introducing for the paper the REGULARIZATION COMPONENT (α).

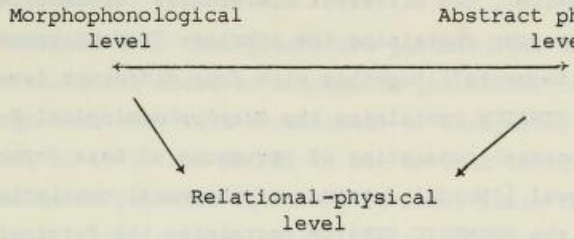
Before analyzing the Tai Khamti data, it is necessary to discuss briefly some basic concepts for the phonological description of a language:

1. The concept of hierarchical levels
2. The concept of phonological extension systems $PE_{1,\ldots,n}$
3. The concept of rules
4. The concepts of redundancy-free and minimally-contrastive representations
5. The concept of phoneme

1. **Hierarchical levels.**

This aspect of phonological analysis appears to have escaped somewhat the attention of linguists, due to the powerful impact of generative theory which presupposes the existence of two prominent levels of phonological description, that is, the systematic phonemic and the systematic phonetic level. The 3-level representation of sound structure analysis as suggested by Fudge 1972 can possibly be shown to produce more relevant facts about the structure of a language, all the more so if we are committed to finding the underlying principles of language structure at the highest level of adequacy, namely, that of explanatory adequacy (cf. Chomsky 1964, chap. II: "Levels of success for grammatical description"). Unfortunately, we are not yet in a position to state satisfactorily what are the logically and methodologically pertinent factors for determining the concept of three independently motivated hierarchical levels. Some of these factors at least can be clarified in connection with the other concepts discussed here. In addition to my introductory remarks on levels in phonological analysis, I present here the figure in Saumjan 1967 together with a quotation from this paper, as well as three reasons in support of a separate abstract phonological level from Fudge's 1972 review of Postal 1968:

Saumjan (1967:217):



Thus, the question of the levels of phonological representation is more complicated than it may seem at first glance. If phonological means are considered from the standpoint of their utilization in the generative grammar, then, of course, the phonological level proper must be regarded as an intermediate level between the morphophonological and relational-physical levels, and we can abstract ourselves from this intermediate level by establishing a direct correspondence between the morphophonological level and the relational-physical level. But if the phonological means are considered from the point of view of their diacritical potentialities, the morphophonological level becomes intermediate. Indeed, any global symbol may be recoded at the level of purely phonological representation and then transferred to the level of morphophonological representation. Therefore the interaction between the three levels mentioned would be represented by a triangle as shown in figure I, rather than by a vertical line (from top to bottom).

Fudge (1972:142-43):

We now return to the question of whether there are parts of the linguistic system for which an abstract phonological level (as opposed to a morphophonological level) is a prerequisite: at least three such cases may be cited:

(i) Performance models would more easily incorporate a system like Figure 1 than the normal MIT system (i.e. one like Figure 2 minus the intermediate level)[3]... The most important difference [that is, as compared to Postal's approach; A.W.] is that perceptual performance will ignore many of the features of the systematic phonetic representation. At the same time, the systematic phonemic representation (in which lexical formatives appear in general in a single base form) is often rather remote from the phonetic form, and is therefore hardly a good basis for the perceptual part of the phonetics (in fact the whole point of a systematic phonemic representation is surely lost if we assume it is directly recognizable from the signal). The MIT generative approach lacks an intermediate level in terms of which such performance could be formalized, while the other approach under consideration has no such limitation: by defining the abstract phonological level on lines rather like classical taxonomic phonemics, description of perceptual performance would be greatly facilitated...

(ii) A model in which the phonological hierarchy was given its proper place would fit admirably into a system like Figure 1. (...) The grammatical hierarchy would feed into the morphophonological level, and the elements from here would be merged with the phonological hierarchy at the abstract phonological level; ...

(iii) In studying the relations holding between phonological structure and the semantic feature of 'expressiveness', the relevant phonological elements are rather like taxonomic phonemic features (Fudge, 1970:162).

From his Figure 3, in which Fudge sketches two separate strata (PHONEMIC STRATUM and PHONETIC STRATUM), two different hierarchies (Grammatical hierarchy and the Phonological hierarchy containing the rubrics: "Breath group, Stress group, Word, Syllables, Segments") together with four different levels of representation (the PHONEMIC STRATUM containing the *Morphophonological R-level* ['Words' (strings of phonemes) consisting of sequences of base forms] and *Abstract phonological R-level* ['Words' (strings of phonemes) consisting of sequences of allomorphs], the PHONETIC STRATUM containing the *Extrinsic* and *Intrinsic allophonic R-levels*), we can make further delineations with the help of the other concepts 2., 3., 4. and 5. outlined below.

It should be clearly seen that, even if further research will not corroborate one or the other detail of Fudge's Figure 3, grammatical and phonological categories are essentially distinct in character and that both of them result in the relational-physical level of the phonetic output. It should be stated here that the abstract phonemic level within the phonemic stratum in no way corresponds to the classical (autonomous, taxonomic) phonemic level violently stigmatized by generative authors, e.g., Postal 1968, as a 'piecemeal' variety of linguistic analysis; together with the notions of 'rule' and 'redundancy-free representation' which, naturally enough, have been the proper domain of generative theory, the individual status of a separate level intermediate between the morphophonological level and the relational-physical level can be placed on firm grounds.

2. Phonological extension systems

The cumbersome question as to what part of the phonological strata (phonemic/phonetic) and within which hierarchy (grammatical/phonological/relational-physical = phonetic) a given rule (provided we have conceptualized a linguistic theory on the basis of rules) applies, appears to be one of the main issues of generative theory as becomes evident from Chomsky and Halle's *Sound Pattern of English*. There (p. 173) we find two conventions for the handling of exceptions:

> *Convention 1*: Every segment of a lexical matrix is automatically marked [+*n*] for every rule *n*.

This is to guarantee that "if a certain formative is not subject to rule *n*, its segments must be marked [-*n*]."

> *Convention 2*: Every segment of a lexical matrix μ is marked [αK] for each category [αK] to which μ belongs.
>
> Thus, in particular, if a formative belongs to the lexical category [-*n*], each of its segments will be marked [-*n*] by Convention 2, after automatically having been marked [+*n*] by Convention 1. Thus every time a certain formative is an exception to a rule, there is a certain "cost" associated with this fact, namely, a certain category assignment must be given the lexical entry. But an item that does undergo a rule need not be specially

marked. Thus only exceptions to a rule contribute to the complexity of the grammar in this connection.

Numerous examples show that generative phonological theory, quite similar to the denounced classical model of autonomous phonemics, cannot dispense with the concept (though here very much formalized) of exception. This may not be surprising as long as we do not bother to ask on what level within the morphophonological/phonological/phonetic hierarchy it makes sense to speak about exceptions. In a first step towards clarification this can be answered in the negative with reference to the (systematic) phonetic level: it is obvious that a low-level rule *n*, close to the systematic phonetic output and applying only to a subpart of the linguistic system, is not able to produce a change in the speech habits of a competent speaker, which, articulatorily and/or auditorily, could be classed deviant or exceptional by another competent speaker. (It is of course understood that such a rule is not derived itself from a higher level of phonological analysis.) Evidently, it appears natural to restrict the use of rule exceptions to a higher level of phonological analysis; hence, in terms of the systematic phonemic model of *The Sound Pattern of English*, we must ask about the specifications that are subject to, and have a direct bearing on, these exceptions. Exceptions relevant within the grammatical hierarchy and exceptions within the phonological hierarchy are in no way correlated in a one-to-one relationship as seems to be implied from the examples given in *Sound Pattern of English*[4].

However, with the help of the concepts outlined above, and together with terms like 'structure' and 'rule', the application of rule exceptions can *a forteriori* be restricted to the abstract phonological level to the end that, whenever a phonological system (possibly also a subsystem of a system) S_i with a set of elements $e^i_p/p = 1,\ldots,n$ is shown to be partially or completely inapplicable to another set of elements $e^j_q/q = 1,\ldots,n$, this very set must be made the basis for the establishment of a subsequent phonological system (or subsystem, respectively) S_j. Now, if every phonological system of a given language or dialect is viewed as a structural extension of its individual elements $e_1,\ldots,e_n$, we are justified in deducing PHONOLOGICAL EXTENSION SYSTEMS $PE_{1,..,n}$ in which every subsequent extension system PE_j must be structurally extended (positively or negatively or both) from the preceding extension system PE_i (with $i \neq j$). As a result, exceptions are shown not only not to imply the linguist's failure to offer adequate explanations for certain subparts of a linguistic system appertaining to more suitable fields of application, but also exceptions to be superfluous to deal with and requiring no independent methodological status within the generative framework of linguistic analysis.

The main interest of the analyst is obviously directed to the task of determining the *PE*-structure that lies at the bottom of a given language: it will be called PRIMARY PHONOLOGICAL EXTENSION SYSTEM PE_1, with the reservation that it constitute a status independent of all possibly emerging subsequent phonological modifications which might extend PE_1. A perusal of these phonological extension systems would yield PE_1 to constitute the *core* and $PE_{>1}$ the *periphery* of the language[5]. Within the periphery it would be necessary to differentiate further between the extension systems

(a) that still conform to the structural and morpho-semantic patterns as laid down in PE_1 so that they are attributable to PE_2, and

(b) systems that do not conform any more to the structural and morpho-semantic patterns of PE_1, that is, constitute genuine innovations with respect to PE_1 so that they are attributable to PE_3.

Within PE_3 different degrees of innovative strength can be differentiated or, again with reference to PE_1, different degrees of adaptation to the original sound structure of the language can be elicited, requiring even a core-periphery analysis within PE_3 itself[6].

To sum up, instead of negatively characterizing morphophonological and/or phonological sound structures of the phonemic stratum as being exceptions to certain rules, it is claimed that a classification of sound structures can be done in a positive way by introducing phonological extension systems according to which every subsystem is hierarchically embedded in a suitable place within the phonemic stratum.

3. Rules.

I basically agree with Fudge 1969 when he is criticizing the use of rules as employed in generative phonology. The formal distinction into three different levels of representation as proposed here allows for a precision in the use of phonological rules. Along with a strict separation of the morphophonological, the phonological, and the phonetic levels (which will be expressed by using different brackets for each level) a formal device is required that interrelates the different levels. Generative grammar employs the arrow which in logic signifies implication, e.g., $p \rightarrow q$, "if p, then q". Since in my model one level is deductively derived from another, we are entitled to make use of this symbol *together with the further provision that one level derive from another with the help of a diacritic component intended to give an interpretation in terms of the involved structural processes.* Henceforth an analysis based on the use of diacritic components will be termed a *componential phonological analysis.*

In studying relevant passages on phonological rules in books such as *The*

Sound Pattern of English, it can be observed that no distinction is made with respect to the diacritical value of these rules. That these rules should possess different values of decreasing strength from the morphophonological down to the phonetic level has been recognized by Fudge 1967 and 1969. MUTATION RULES are established to account for rules such as /t/ → /s/ and /d/ → /z/ in English pairs like *pirate/piracy* and *persuade/persuasive*; REALIZATION RULES such as /k/ → /s/ and /g/ → /j/ in *medical/medicine* and *allegation/allege*, since they are "of extremely wide application in English. The difference is certainly reflected in the orthographic treatment of the two cases: the latter case retains the letters c and g for the different pronunciation before i and e, while the former case is handled by substitution of different letters before i." (Fudge 1969:37).

We should also quote a passage from Šaumjan (1967:221-22) in which he advances the separate existence of two kinds of rules:

> Thus, when formulating phonological rules in generative grammar two kinds of phonological processes should be distinguished:
> 1) phonological processes occurring under definite morphological conditions, i.e. in the context of a definite class of affixes;
> 2) phonological processes occurring under definite phonological conditions, i.e. in the context of definite distinctive features or phonemes.
>
> Transformational grammar does not differentiate these two kinds of phonological processes. However, such differentiation is of fundamental importance.
>
> Rules pertaining to the first kind of phonological processes will be called morphophonological rules, and those pertaining to the second kind of processes will be called phonological rules.

This is a starting point for a new analysis in which the application of such different rules can be given by way of construction: MUTATION RULES operate from the abstract morphophonological to the abstract phonological level *in conjunction with diacritic components*; REALIZATION RULES operate from the abstract phonological to the fully specified phonetic level (specified in terms of diacritic feature components relevant for this level).

With these remarks in mind, we may give a preliminary determination of the question of rule ordering. That MUTATION RULES are prior to REALIZATION RULES can be gathered from our above hypothetical assumptions. As for the further differentiation of MUTATION RULES into the rule component REGULARIZATION (α) on the one hand and all other components[7] on the other hand, experience has shown that these two classes of rule components are incommensurable in their *epistemological content* to such an extent that a classification granting priority of one over the other seems entirely arbitrary. Rather it may be said that application of (α) and other components is carried out simultaneously to produce the abstract phonological level in one generating step. The ordering of the other rule components among themselves is not dealt with here since this

has no bearing on the present study. As regards the ordering of REALIZATION RULES there does not seem to exist any significant difference between the phonemicized approach outlined here and the ordinary generative approach which, in the majority of cases, exhibits features of low-ranking degree in the phonemicized approach. To cite one example, in Brame's (1972) paper which treats one apparent case of the REGULARIZATION component, the rules given on p.44 are essentially REALIZATION RULES and would consequently be used to apply at the phonological level provided a componential analysis is applied to this example. Rules relevant on such a level bear typical labels like the ones in Brame (1972: 44): METATHESIS, TRUNCATION, STRESS ASSIGNMENT, APOCOPE, PROTHESIS, GUTTURAL ASSIMILATION, VOWEL REDUCTION. Components such as VOWEL HARMONY cannot readily be accounted for within one or the other level; in my opinion, only a comprehensive analysis of the available structural extensions is able to demonstrate the application of such a component.

A problem of a more technical nature concerns the range of application of diacritic components with respect to the hierarchy of phonological extension systems $PE_{1,\ldots,n}$. If viewed from the theoretical premises of classical taxonomic structuralism, it will be found that any kind of phenomenon newly introduced into the overall phonological and morphological patterns of a language and constitutive of peripheral sound structures is granted the same weight and given the same attention in descriptive analysis. Such a kind of procedure dilutes unduly the proper evaluation of the sound structures of the core of the system[8]. With respect to generative phonology (at least of the standard variety of *The Sound Pattern of English*) it is observed that any kind of rule conceived as 'explaining' certain features of the sound structure of a language (though as inherent of, and substantial for, the sound structure either of core or of periphery it may be) must be restricted in its use with reference to so-called exceptional features; in this case, the explanatory value of a rule is hindered because no criteria are given that could determine why certain features do not undergo an otherwise well-founded rule.

As for the system of diacritic components outlined here, a decision must be made as to which sound structures are undergoing which structural processes (on the explanatory basis of diacritic components) with reference to which phonological extension system. The particular use of a diacritic component will be shown by indicating its relevance for each phonological extension system separately. Thus, the α-component that interests us in this study has been conceived so as to interpret the morphophonological and the phonological representations of non-modificational structural phenomena with reference to a particular phonological extension system. The idea that lies behind this diacritic feature can be roughly sketched in the following way: if a certain structural

phenomenon, which is subsumed to be indicative of the morphophonological level with reference to a certain phonological extension system PE_i, does not become subject to different phonological treatment in any subsequent PE_{i+1} (so that the phonological level reduplicates the morphophonological level), then this feature must be classed as so typical and universal for the (phonological) sound structure of a language that it will be labeled as a phonetic feature and, consequently, taken care of by a REALIZATION RULE. If, however, a certain structural phenomenon, which is assumed to be indicative of the morphophonological level with reference to a certain phonological extension system PE_i, does become subject to different phonological treatment in any subsequent PE_{i+1}, then this particular (non-modificational) phenomenon must be classed as typical of this PE_i only; it will now be classed under a regularization feature that transforms the representation of the morphophonological level into the one of the phonological level. We can now state the main principle for the application of the REGULARIZATION component in the following terms: *if PE_1 remains unextended by PE_2 in any one of its subsystems, this very system may be taken to remain unchanged on the abstract phonological level* (see the application of this principle for the Khamti data analyzed below).

To summarize, in deriving any surface-structural phonetic form from deep-structural morphophonological and phonological forms we were led to assume a particular relevance of a given rule together with its intrinsic epistemological content to take charge of the different derivational processes. The ultimate aim of such a kind of phonology will be to uncover, to classify, and to formalize in a linguistically significant way semantic feature contents equivalent to an interpretation of language structure. These feature contents have been labeled DIACRITIC COMPONENTS interrelating the different levels; their particular value is indicated by a Greek letter constant attached to the segment it modifies.

4. Redundancy-free and minimally-contrastive representations.

It is one of the positive aspects of generative phonology to have placed emphasis on redundancy-free representations. Apparently this can only happen on a level which allows for abstraction of redundant feature specifications as exhibited on the phonetic level. It seems feasible to place the constraint of redundancy-free representations on a level which shows the relevant phonological units and structures for a given language; relevant in two senses of the term: (a) from the point of view of universal complexity of a specific phonological pattern in terms of universal phonological organization, (b) from the viewpoint of linguistic significance relating to an adequate theory of a competent speak-

er's speech behaviour. The only level to take care of the principle of redundancy-free representations must be the abstract phonological level. As I hope to show, a phonological redundancy-free representation can be equally well produced with the PHONEME as basic unit[9].

As a second step towards the evaluation of a maximally adequate theory of phonological structure, we can postulate a distinctive criterion on morphophonological representations, viz. MINIMAL CONTRASTIVITY. On the basis of rule components, particularly α = REGULARIZATION, it will be possible to finally arrive at a level which evinces the semantic base forms in their highest abstraction. This principle of minimal contrastivity partially corresponds to the 'systematic properties' of *The Sound Pattern of English* in which the authors state (p.414) "that certain systematic properties such as symmetry (in some sense that has yet to be made precise) must also play a role in determining complexity."

5. The phoneme.

What is meant here by representations of the abstract phonological level, should be specified more in detail under its proper title. That the concept of phoneme in phonological descriptions cannot be entirely dispensed with as generative theory has made us believe, should by now have become clear. Depending on the particular problem under study, it can be shown more or less successfully to what extent principles of clearly phonological rank warrant an analysis in terms of phonemes[10]. In delimiting the functions of a relatively independent abstract level between the abstract morphophonological level on the one hand and the concrete phonetic level on the other hand, we have expressed the need for redundancy-free representations based on structurally relevant contrast. Whereas the morphophonological level is conceived to be the direct output of the syntactical hierarchy, and whereas its single elements, which are the base of all further phonological developments, can be shown to be highly abstract in many cases, the concrete phonetic level must be conceived so as to contain a maximum number of elements relevant for the articulatory/acoustical/auditive processes involved in relational-physical phonetics, and equivalent to a narrow phonetic transcription. The structural point of view, which has been emphasized in the course of a syntagmatically- (or contextually-) orientated phonological history, should not fall into oblivion simply because in some instances the abstract phonological level appears to be identical with the abstract morphophonological level. An approach different from the classical one must include a logical condition according to which representations of the abstract phonological level do become influenced by phonetic representations *in the same measure* as they become influenced by the requirements of abstract morphophonological repre-

sentations. This fact is, metaphorically speaking, an incessant tug of war at the extreme ends of the entire phonemic system. The formal properties of redundancy-free representations as well as the main principle for the application of the REGULARIZATION component ("If PE_1 remains unextended by PE_2 in any one of its subsystems, this very system may be taken to remain unchanged on the abstract phonological level.") envisage an abstract phonological level which, in some instances, comes closer to the morphophonological level, and closer to the phonetic level in others, depending on the componential feature aspects relevant for the phonological segments under study. Indeed, it constitutes one of the major tasks of the linguist to determine and to weigh the strength and range of application of both coherent and incoherent principles and arguments employed in phonological analysis.

Though the need for introducing a phonological level separate from the morphophonological level has been recognized by some generative phonologists, one would not expect the same flawed principles to enter into phonemic analysis which have led to the abolishment of classical phoneme theory by generativists. The statement made by Schane (1971:503) about "the phoneme as a viable phonological unit for capturing relevant surface contrasts" leave one in doubt whether the existence of a separate abstract phonemic level has been duly motivated:

> ... I conclude that the phoneme must be recognized as a phonological entity. Synchronically, a phonemic representation is not to be discovered by applying a set of procedures to a phonetic representation, nor does it exist as an autonomous level within a generative phonology; rather, it is to be characterized as a representation of relevant surface contrasts which is deducible from the function of the rules within a generative phonology. Thus the phoneme does in fact have a place in generative phonology without in any way changing the theoretical basis. (Schane 1971:503)
>
> Finally, I suggest that the output (i.e. derived surface representations) of generative phonology and the representations of classical phonemics are really quite similar, and that the alleged differences have been unnecessarily exaggerated. (Schane 1971:504)

Obviously, Schane tries to implement a phonological level exactly matching the classical autonomous phonemic one which, as can be seen from the examples, might be able to capture some, but not all, of the "relevant surface contrasts". Owing to his lack of principled decisions as to why all his phonemicizations have been judged to appear so closely to the phonetic output, Schane's argument in favour of the phoneme concept loses its credibility; it is with reference to this point that autonomous phonemics has been severely criticized as an unnecessary and superfluous level of phonological representation. Besides, what does the notion "relevant surface contrast" mean? From the phonetic point of view, I think it can be easily shown that all features involved in speech production and perception must possess a certain degree of relevance. (This argument of 'rele-

vance' has been borrowed here from another level where it simply means "structural relevance" referring to a level different from the phonetic level, i.e., the abstract phonological level.)

To exemplify my argument, I may cite from the well-known Russian example (Schane 1971:517). The question of how we represent |mok bi| → [mog bʲ] "were (he) getting wet" and |žeč bi| → [žeǰ bʲ] "were one to burn" on the phonological level must be left undecided and completely arbitrary as long as there are no further criteria for implementing a separate phonological level. The proposal to transcribe these two phrases as /mog bi/ and /žeč bi/ according to the classical phonemic principle is rejected on the basis of considerations which classify this particular feature of Russian (VOICING ASSIMILATION) as a typical example of phonemically-conditioned morpheme alternation which, in a componential feature analysis, would have to be expressed by a constant π (= phonemically-conditioned morpheme alternation, to derive morphophonological representations into their respective phonological values), if and only if there would be a violation of this particular conditioned morpheme alternation in subsequent phonological extension systems $PE_{>1}$. In this case, the derivation would yield:

$$|\text{mok}_{\pi}\ \text{bi}| \rightarrow /\text{mog bi}/ \rightarrow [\text{mog bʲ}]$$

$$|\text{žeč}_{\pi}\ \text{bi}| \rightarrow /\text{žeǰ bi}/ \rightarrow [\text{žeǰ bʲ}]$$

Assuming that this is not the case for any $PE_{>1}$ in Russian, this feature will now be classed as a typical liaison feature of Russian, indicative of articulatory speech habits of a Russian speaker, hence a mere phonetic criterion. At this stage of the analysis, the representations of the phonological level must be considered under the aspect of redundancy-free representations; thus, for the above example, the phonological level will reduplicate inevitably the morphophonological level, and only the shift from the phonological to the phonetic level will have to be marked by a phonetic diacritic λ = LIAISON, i.e., voicing assimilation. In the above example, this new derivation takes the following form:

$$|\text{mok bi}| \rightarrow /\text{mok}_{\lambda}\ \text{bi}/ \rightarrow [\text{mog bʲ}]$$

$$|\text{žeč bi}| \rightarrow /\text{žeč}_{\lambda}\ \text{bi}/ \rightarrow [\text{žeǰ bʲ}]$$

An example taken from an African language, which has a direct bearing on our analysis with the help of the diacritic component (α), shows the fallacy of Schane's argument. In Nupe, we find derivations like the following:

$|\text{egæ}| \rightarrow [\text{eg}^{\text{Y}}\text{a}]$ "blood"

$|\text{egɔ}| \rightarrow [\text{eg}^{\text{W}}\text{a}]$ "hand"

$|\text{egi}| \rightarrow [\text{eg}^{\text{Y}}\text{i}]$ "child"

$|\text{egu}| \rightarrow [\text{eg}^{\text{W}}\text{u}]$ "mud"

The phonemicization suggested by Schane is again very close to the phonetic output, viz. /eg^{y}a/, /eg^{w}a/, /egi/ and /egu/, respectively. The latter two cases are not difficult to handle because PALATALIZATION [^{y}] and LABIALIZATION [^{w}] are part of the phonetic effect of underlying /i/ and /u/; the same result is obtained from the viewpoint of redundancy-free representations. The classification of the former two cases of showing "morphophonemic effect" (Schane 1971: 519), however, runs counter to factual observations in which no form morphophonologically derived from |egæ| and |egɔ| would point to the establishment of the final morphophonemes |-æ| and |-ɔ|. Indeed, this appears to be an example of possible application of the REGULARIZATION component (α), and it does make full sense to apply the main principle for the application of the REGULARIZATION component; namely, if and only if PE_1 of the Nupe language can be shown to remain unextended by any further $PE_{2,\ldots,n}$ for these word structures, the underlying phonological representations must be /egæ/ and /egɔ/[11]. The legitimization to posit underlying |æ| and |ɔ| as morphophonemes is based solely on the analytical requirement to structurally 'measure' the degree of deviation (realized phonetically [^{y}a] and [^{w}a]) from a hypothecized symmetrical pattern for the representation of which there is only a place on the morphophonological level; this has nothing to do with morphophonological processes which would otherwise result in surface-structural differentiations of single base forms.

6. Tai Khamti phonology.

6.1. Application of the REGULARIZATION component.

First of all, I will give the phonetic values of the segmental sounds relevant for the phonological description.

Syllable-final position of vowels:

[i: e: ɛ: a: ɔ: o: u: ɯ:]

Syllable-closed position of vowels:

[i u a ɯ e· ɛ· a· o· ɔ· ɯ·]

(· half-long)

It should be noted that five tones /¯ ˍ ˋ ˊ ˇ/ apply in a well-balanced manner (each of them naturally having its own frequency) to all vowels plus the structures in which these vowels appear. In a first step towards redundancy-free representations it can be stated that the proper domain of these tones extends over a range in which vowels and, to a lesser degree, consonants, become subject to further modifications. This holds certainly true for the length of vowels in syllable-final position, so that this feature (plus other features like nasalization and creakiness) can be restricted to the articulatory/acous-

tical sphere of tones.

The vowels in syllable-final position will be represented phonologically as follows:

/i/ /ɯ/ /u/
/e/ /o/
/ɛ/ /ɔ/
/a/

On a closer inspection of the morphs in which these vowels appear, it will be observed that those morphs having /ɛ/ and /ɔ/ in syllable-final position exhibit a kind of 'exceptional' status as regards their limited occurrence and semantic content: most of them belong to morph classes such as phonaesthetic adverbs, interjections, verbs either derived from interjections and phonaesthetics or belonging to such intimate and affectionate situations such as baby talk and child language. The remainder are verbs with falling tone plus the vowel [ɛ] which freely varies with a sequence of palatal continuant plus the vowel [a], that is, [-ya]. In order to allow for a clear distinction between adjacent phonological extension systems, I shall treat the forms with final [-ya] as morphological base forms; their variants ending in [-ɛ] will be simply cited as such in the lexicon (without the attempt of grouping them into PE_2 because they are not conditioned by any of the above-mentioned extra-systemic factors).

The phonological extension systems $PE_{1,\ldots,n}$ which turn up for consideration at this stage of the analytical procedure, are expressly designed to account for differences in morpheme classes overtly manifesting themselves in differences of sounds and sound structures[12]. Thus, the above triangular vowel diagram may be represented as:

PE_1: /i/ /ɯ/ /u/ PE_2: /ɛ/ /ɔ/
/e/ /o/
/a/

The evaluation criterion brought up at this stage of the analysis will claim a PE_1^* having /i ɛ a ɔ u/ as its structural pinpoints to be simpler in terms of universal phonological symmetry than our Khamti PE_1:

/i e a o u/[13].

In order to facilitate a comparison of structural symmetry, a regularization component is introduced to account for irregular treatments at certain points or at whole substructures within a given structure. Numbering the structural rows of PE_1:

3 i u

2 e o

1 a

and comparing them with the nearest symmetrical PE_1, in our case PE_1^*:

3 i u

2 ɛ ɔ

1 a ,

it can be seen that the second row of PE_1 diverges in the degree (α) from the second row of PE_1^* [14]. The equivalent of PE_1^* for the Khamti example will be gained by regularizing PE_1 in the degree α, i.e.,

$|PE_1^n|_\alpha$ - PE_1^* [n = number of substructures]

or, with only row 2 regularized in the degree α to achieve the same result:

$||PE_1^3|^2|_\alpha$ - PE_1^*.

The only level to which α is left to apply must be the abstract morphophonological level generating a minimally contrastive phonological structure within PE_1. The vowels which are subject to the regularizing process can be re-written as:

/2: e o/ ← $|$2: ɛ ɔ$|_\alpha$, or

/e/ ← $|\varepsilon|_\alpha$ and /o/ ← $|\mathrm{ɔ}|_\alpha$.

Given the morphophonological level as the starting point of an α-regularized system, the question may be asked up to which level α will be allowed to apply. This is certainly a difficult question, and the principle that I venture to propose for the application of the REGULARIZATION component is based on an empirical issue: *if PE_1 remains unextended by PE_2 in any one of its subsystems, this very system may be taken to remain unchanged on the abstract phonological level* (cf. pp.9, 11). Since symmetry is obviously implicit in such a system, (α) can be dispensed with altogether and realization rules will be found to apply to the system yielding its final phonetic output. The above Khamti example, however, is exactly a counterexample to this principle: PE_1 is extended by PE_2, /ɛ ɔ/ giving rise to an overall 8-phoneme system. In order to uphold the existing phonological oppositions on at least one level, the phonological level seems to be the most suitable one, i.e., minimal contrastivity is achieved with the help of the REGULARIZATION component (α) on a level which goes beyond the level to which the principle of redundancy-free representations has been applied. Compare the exact representation of syllable-final vowels in the structural description of section 6.3. (below).

By analyzing the vowels in syllable-closed position there must certainly exist an underlying distinctive feature which permits the vowels to be grouped in two:

I: i ɯ u II: ɯ·
a e· o·
ɛ· ɔ·
a·

Before checking the validity of the analytical procedure on the basis of (α), a statement must be made about the phonological distinctiveness of these two groups. To posit a contrast on the basis of quantitative length opposition would be inadequate since the quantity of the second series seems to be a rather unstable feature (values from short to half-long to long). To establish a contrast on an open vs. closed basis to account for the difference of i vs. e· and u vs. o· would not reflect the non-qualitative opposition of ɯ vs. ɯ· and a vs. a· . A third proposal would entail to introduce a 10-tone system arranged into two groups and differentiated by a distinctive feature. However, such a system would clearly be uneconomic and one would have to ask what would this distinctive feature be like.

We shall postulate then a basic lax-tense opposition by which the two groups are differentiated; notationally, this opposition should be expressed in the following way[15]:

I(lax): I Ɯ U II(tense): ɯ
A e o
ɛ ɔ
a

It is seen that the length feature existing in group II will be suppressed in favour of a redundancy-free representation by placing one distinctive feature at the base of the phonological description of vowels. In this example group II of tense vowels seems to offer another possibility of applying the REGULARIZATION component (α). Again the nearest structural equivalent (as compared to the structural arrangement of group II) will be PE_1^* as shown above with the difference that now the front and back high vowels are involved in structural symmetry considerations.

I re-write group II in the following way:

II(tense): |i| |ɯ| |u|
|ɛ| |ɔ|
|a|

Is it an instance of α-application? By making use of the principle quoted above it is noticed that |i| and |u| remain unextended by PE_2, that is, no phonetically tense [i] or [u] vowel can be found in PE_2. Thus, |i| and |u| will

pass unchanged through the abstract phonological level as /i/ and /u/, and realization rules like LOWERING will ultimately give the phonetic outputs [e] and [o].

6.2. Redundancy-free representations.

Having obtained a minimally contrastive vowel pattern, a few cases remain in which the principle of redundancy-free representations can be applied. In Tai Khamti this concerns the treatment of palatal and labial continuants [j] and [w] in pre-vowel position and nonsyllabic [i̯] and [u̯] in syllable-final position. Since [i], [j], [i̯] as well as [u], [w], [u̯] are mutually exclusive in their respective positions, they can be represented by single phonemes with different rules taking charge of their different phonetic outputs. In order to reach at a minimum set of phonemes the choice lies between /I/ or /i/ as well as /U/ or /u/. On phonetic grounds /I/ and /U/ will be selected as members of the lax vowel series; on structural grounds preference must be given to /I/ and /U/ in order to avoid confusion with the tense vowels /i/ und /u/.

6.3. Structural description of the phonology of Tai Khamti[16].

6.3.1. Abstract morphophonological level.

6.3.1.1. The primary phonological extension system PE_1.

Structural patterns: (1) $|{}^{\tau}C_{o}^{2}V_{1}^{2}|$ (2) $|{}^{\tau}C_{o}^{1}V_{1}^{1}C_{f}|$

6.3.1.1.1. $|{}^{\tau}C_{o}^{2}V_{1}^{2}|$

τ = | ¯ _ ˋ ´ ˘ |

C = p t k
ph th kh
m n ŋ
l
s h
ts

C_2 = l ⟶ C_1 = p t k
ph kh

V = i u
ε_{α} $\mathfrak{o}_{\alpha}$
a

V_1 = I ⟶ V_2 = a $\mathfrak{o}_{\alpha}$ u

V_1 = U ⟶ V_2 = a[17]

Syllable structure conditions:

$C_1C_2 \longrightarrow V^1$ ["In case of syllable-initial consonant clusters, a maximum of one vowel is possible."]

$V_1V_2 \longrightarrow C^1$

6.3.1.1.2. $|{}^{\tau}C_o^1V_1^1C_f|$

τ = as in 6.3.1.1.1.

C_1 = as in 6.3.1.1.1.

V = (I) I ɯ U (II) i ɯ u
A ɛ ɔ
a

C_f = p t k
m n ŋ

C_f = p t k $\longrightarrow$ τ = ¯ (high), _ (low).

Substructure condition: $C_f = V_2$; then:

V_2 = I $\longrightarrow$ V_1 = U u A a ɔ ɯ ɯ

V_2 = U $\longrightarrow$ V_1 = I i A a ɛ

V_2 = ɯ $\longrightarrow$ V_1 = A

6.3.1.2. The secondary phonological extension system PE_2.

Structural patterns: (1) $|{}^{\tau}C_o^1V_1^2(?)|$ (2) $|{}^{\tau}CVC|$

6.3.1.2.1. $|{}^{\tau}C_o^1V_1^2(?)|$

τ = ¯ (high), _ (low).

C = as in 6.3.1.1.1.

V = i u
e_2 o_2
ε_2 $ɔ_2$
a

Examples for $|e_2|$: see $|tse_2?|$, $|te_2?|$ in the vocabulary.

Examples for V_1V_2: see $|{}^{\tau}Uɔ_2|$ in the vocabulary.

6.3.1.2.2. $|{}^{\tau}CVC|$

No change in comparison with the primary phonological extension system PE_1.

6.3.2. Abstract phonological level.

Structural patterns: (1) $/{}^{\tau}C_o^2V_1^2/$ (2) $/{}^{\tau}C_o^1V_1^1C_f/$

6.3.2.1. /$^{\tau}C_{o}^{2}V_{1}^{2}$/

V = i ɯ u
e o
ɛ ɔ
a

The rest is equivalent to 6.3.1.1.1. and 6.3.1.2.1.

Substructure condition: C_f = /ʔ/; then: /$^{\tau}C^{1}V^{1}$ʔ/

τ = ¯ (high), _ (low).

6.3.2.2. /$^{\tau}C_{o}^{1}V_{1}^{1}C_{f}$/

V = (lax) I ɯ U (tense) i ɯ u
A ɛ ɔ
a

(a) /$^{\tau}C_{o}^{1}V_{1}^{1}$P/ (P = plosive)

τ = ¯ (high), _ (low).

P = p t k

(b) /$^{\tau}C_{o}^{1}V_{1}^{1}$Ct/ (Ct = continuant)

τ = ¯ ˋ ˊ ◡

Ct = m n ŋ

Substructure condition: Ct = V_f: I U ɯ

VV_f-Clusters:

AI UI ɯI IU AU
aI uI ɯI ɔI iU ɛU aU
Aɯ

6.3.3. Phonetic level.

Tones:

/¯/ high, even

/_/ low, even

/ˋ/ high-falling

/ˊ/ low-rising, accompanied by slight nasalization and ending in glottal stop.

/◡/ creaky voice throughout the duration, very low pitch

Phonologically, the pitch level of this tone is definitely not its structurally relevant feature, rather one should take into consideration its creakiness to be relevant on the phonological level. It should also be noted that Wang's (1967:97) table of tones and their features does not account either phonetically or phonologically for the tonal inventory of Tai Khamti. Provided that the

complete phonological description as shown here could be transferred in a meaningful way into a distinctive feature scheme, the structurally relevant features of the above tones would have to be represented as /◌̄/ → [+high], /◌̲/ → [+low], /◌̀/ → [+falling], /◌́/ → [+rising], /◌̰/ → [+creaky].

Vowels:

/I/ (a) high, front, lax, short; (b) [i̯] non-syllabic vowel in diphthongs.

/U/ (a) high, back, rounded, lax, short; (b) [u̯] non-syllabic vowel in diphthongs.

/ɯ/ (a) high, back, unrounded, lax, short; (b) [ɯ̯] non-syllabic vowel in the diphthong /Aɯ/.

/A/ low, lax, short.

/i/ (a) [i] high, front, tense, short/half-long/long depending on speed, style and carefulness of pronunciation, occurring in open syllables; (b) [e·] high-mid, front, tense, half-long, occurring in closed syllables.

/e/ high-mid, front, tense, short/half-long/long, occurring in open syllables.

/ɛ/ low-mid, front, tense, short/half-long/long; before final plosives lower than the cardinal value, together with centralized off-glide; before final [u̯] almost diphthongal value: [ɪɐ].

/u/ (a) [u] high, back, rounded, tense, short/half-long/long, occurring in open syllables; (b) [o] high-mid, back, rounded, tense, half-long, occurring in closed syllables.

/ɯ/ high, back, unrounded, tense, short/half-long/long.

/o/ high-mid, back, rounded, tense, short/half-long/long, occurring in open syllables.

/ɔ/ low-mid, back, rounded, tense, short/half-long/long; before final plosives lower than the cardinal value, together with centralized off-glide.

/a/ low, tense, short/half-long/long.

Consonants:

/p/ (a)(syllable-initial) bilabial, voiceless plosive; (b)(syllable-final) unexploded.

/ph/ bilabial, aspirated, voiceless plosive.

/t/ (a)(syllable-initial) dental, voiceless plosive; (b)(syllable-final) unexploded.

/th/ dental, aspirated, voiceless plosive.

/k/ (a)(syllable-initial) velar, voiceless plosive; (b)(syllable-final) unexploded in post-velar/uvular position: [q^{J}].

/kh/ velar, aspirated plosive with realizations up to voiceless velar fricative [x].

/ʔ/ glottal stop

/m/ bilabial nasal

/n/ dental nasal

/ŋ/ velar nasal, pre-velar position before [I i].

/l/ alveolar lateral

Clusters of initial consonants with [l]:

[pl] [tl] [kl]

[pʼl] [kʼl]

/s/ voiceless sibilant in palato-alveolar position

/ts/ voiceless affricate in palato-alveolar position

/h/ glottal fricative

/I/ [j] palatal frictionless continuant before vowels

Clusters of initial consonants with [j]:

[pj] [kj]

[pʼj] [kʼj]

[mj] [ŋj]

/U/ [w] bilabial frictionless continuant before vowels

Clusters of initial consonants with [w]:

[pw] [tsw]

[pʼw]

6.3.4. Mutation rules.

Components: α = REGULARIZATION

Applying to: $|\varepsilon|_{\alpha} \rightarrow /e/$

$|\mathfrak{o}|_{\alpha} \rightarrow /o/$

6.3.5. Realization Rules.

Components:

λ = LOWERING Applying to: $/i/_{\lambda} \rightarrow [e]$

$/u/_{\lambda} \rightarrow [o]$

σ = SEMICONSONANT REALIZATION Applying to: $/I/_{\sigma} \rightarrow [j]$

$/U/_{\sigma} \rightarrow [w]$

ν = NON-SYLLABIFICATION Applying to: $/I/_{\nu} \rightarrow [\underset{\smile}{i}]$

$/U/_{\nu} \rightarrow [\underset{\smile}{u}]$

$/ɯ/_{\nu} \rightarrow [\underset{\smile}{ɯ}]$

ι = ARTICULATORY/AUDITORY IDENTIFICATION

This feature is introduced to guarantee (a) the language-specific realization of those segments that have resulted from all former rule applications (both MUTATION and REALIZATION RULES), and (b) the language-specific realization of groups of segments put together into strings of phonetic concatenation.

The complete derivation of some forms through all stages of the phonological analysis can now be illustrated:

$|_IAI| \rightarrow /_{}_{\iota}I_{\sigma\iota}A_{\iota}I_{\nu\iota}/_{\iota} \rightarrow [_ja\underline{i}]$

$|\bar{}k\varepsilon_{\alpha}| \rightarrow /\bar{}_{\iota}k_{\iota}e_{\iota}/_{\iota} \rightarrow [\bar{}ke:]$

$|\bar{}khiU| \rightarrow /\bar{}_{\iota}kh_{\iota}i_{\lambda\iota}U_{\nu\iota}/_{\iota} \rightarrow [\bar{}k\overset{\frown}{e}\cdot u]$

$|\grave{}pUa| \rightarrow /\grave{}_{\Gamma\iota}p_{\iota}U_{\sigma\iota}a_{\iota}/_{\iota} \rightarrow [\grave{}pwa:]$

7. Summary.

The vocalic sound pattern of a Tai language is taken to exemplify the use of a diacritic component REGULARIZATION (α) applying to the morphophonological level within a 3-level phonological hierarchy. For the determination of this REGULARIZATION component, the concept of 'phoneme' has to be applied in a manner which deviates both from its established classical and generative usage. The concept of phonological extension systems $PE_{1,\ldots,n}$ is introduced in order to arrive at valid statements regarding the phonological patterns of the language. Morphophonological and phonological levels are determined from the viewpoints of minimal contrastivity and redundancy-free representations, respectively. For fuller details on the theoretical framework used in this study as well as a practical result of this method, see the author's *Componential Analysis of Lushai Phonology* (Amsterdam: J. Benjamins, 1975).

FOOTNOTES

1. The examples in *The Sound Pattern of English* can be found most easily through the page references of the Subject Index, s.v. "Phonological Gaps" and "Symmetry in underlying representations".

2. In order to appraise the treatment of this term in our approach, the reader is referred to Martinet's treatment of "holes in the pattern" or *cases vides*, e.g., Martinet 1952 (Chap. III. Structure), or Martinet 1955 (see Index s.v. cases vides). In that author's diachronic theory, pattern incongruity is just one way to explain the change of an irregular towards a (more) regular phonemic system. The purely synchronic approach is exemplified by Chomsky and Halle's statements on systematic gaps versus accidental gaps (Chomsky and Halle, 1965). Cf. the criticism in Peng 1974.

3. Figure 1 is Šaumjan's diagram; Figure 2: Morphophonemic level
↓
(Taxonomic) phonemic level
↕
Phonetic level

4. Exceptions amount to such a magnitude in *The Sound Pattern of English* that they are registered as such in the Subject Index (p.466). As can be gathered below, this bewildering variety of all sorts of exceptions is due to the fact that generative phonologists ignore the existence of subsystems in phonological analysis.

5. As for the core-periphery dichotomy according to the Prague school concept, cf. *Travaux Linguistiques de Prague*, 1966, vol. 2.

6. Thus the number of PE_n is severely limited; as a case under study, I have shown in Weidert 1975 that one attains an index of the magnitude of PE_5, though theoretically there is no upper limit.

7. In Weidert 1975, these components have been conceived as comparative terms on the basis of two parameters "semantic value" and "plausibility of conditioning". Thus, the explanatory value attached to every component is a function of the two parameters.

8. The method of differentiating 'major function' vs. 'minor function' or 'primary pattern' vs. 'secondary pattern' according to the Firthian school concepts constitutes just a preliminary attempt to overcome this problem.

9. For the sake of clarity, a few redundancy phenomena may be quoted on the basis of the phonemicized approach outlined here:
(a) In German, the vowel /a/ of the primary phonological extension system PE_1 is redundantly long before voiced plosives /b/, /d/, /g/ and the dental sibilant /z/. That is why generative phonologists nowadays phonemicize *Tage* "days" as /tage/ and not */ta:ge/ or */taage/ according to the classical structuralist invariation principle "once a phoneme, always a phoneme". Such "exceptions" like *Krabbe* "crab", *Kladde* "waste-book", *Flagge* "flag" in which the doubling of the plosive is a symbol for the shortness of the preceding vowel force us to limit the validity of the above lengthening rule to the proper domain of PE_1, whereas morphemes like *Krabbe*, *Kladde* and *Flagge* must be placed into the secondary phonological extension system PE_2 because these new structures fill in an asymmetric gap within one of the positional contrasts created by the PE_1-system.
(b) In Lushai, a Tibeto-Burman tone language of the Kuki-Naga subgroup, we find a vowel length opposition in syllables closed by voiced consonants, i.e., nasals, semivowels, /l/ and /r/. Each of such syllables must carry one of four full tones (in contrast to two reduced tones that occur only in open syllables on morphological levels higher than the morpheme). The same four full tones can be found in syllables closed by the plosives /p/, /t/ and /k/; all vowels in this position are redundantly long (for all PE_n). Vowel length is interpretable here as a concomitant feature of tone; without it, a tone of the full tone series could not be identified as such phonetically with a full tone occurring in syllables with final voiced continuants. Contrary to all classical structuralist phonemicizations, we write the vowels in redundancy-free phonemic representations without any length mark or doubling of the vowel symbol (cf. Weidert 1975: 4-8).
(c) In Gurung, a Tibeto-Burman language of Nepal, tones are redundantly marked on the phonetic level due to the existence of two independently motivated dipolar contrasts on the phonemic level, that is, contrasts in pitch-accent and breathiness. Since these contrasts most probably extend over all phonological extension systems (together with the corresponding tone characterizations of the syllable), phonemicists of the classical structuralist approach find no difficulty in eliminating tone on the phonemic level (cf. Glover 1970).
Note that two structurally different kinds of applications of redundancy-free representations can be distinguished from these examples: either all

phonological extension systems PE_n are characterized by one particular redundancy rule, or a redundancy rule is valid only for one or two particular phonological extension systems. The latter case is of course the more interesting one for the theory of phonological extension systems and it remains to be seen in what way and to what extent redundancies can be established for single PE_n's of a language (particularly those extension systems dissecting the periphery of the language).

10. Peng 1974 poignantly demonstrates that "there is actually no distinction between the underlying and the surface representations in generative phonology, save for those segments that undergo morphophonemic changes. In other words, if no morphophonemics is involved, the underlying representation is equal to the surface representation *which is in turn equal to the Trager-Smith phonemic representation*, unless some low-level phonetic rules are applied." (p.26; emphasis mine, A.W.). This statement should be compared with Schane's (1971) observations quoted above, p.11.

11. If the answer is yes (that is, no extension in any $PE_{>1}$), the analysis will yield:

$|egæ| \rightarrow /egæ_{\kappa_1}/ \rightarrow [eg^{Y}a]$ (with a phonetic component κ_1 = PALATALIZED VOWEL-LOWERING)

$|egɔ| \rightarrow /egɔ_{\kappa_2}/ \rightarrow [eg^{W}a]$ (with κ_2 = LABIALIZED VOWEL-LOWERING)

If the answer is no (that is, if this derivation becomes violated on any $PE_{>1}$), the analysis will yield:

$|egæ_{\alpha}| \rightarrow /eg^{Y}a/ \rightarrow [eg^{Y}a]$ (i.e., α = REGULARIZATION)

$|egɔ_{\alpha}| \rightarrow /eg^{W}a/ \rightarrow [eg^{W}a]$

If the principle given by Hyman (1973:447)

> "Foreign sounds identical to native underlying forms are lexicalized as such and undergo the phonological rules of the borrowing language."

correctly characterizes all phonological extension systems of Nupe with reference to these two phonemic processes, then the first solution must be the correct one.

12. Note that this is a sufficient, but not a necessary argument for the definition of phonological extension systems. A necessary argument which entails a neat criterion for the differentiation of phonological extension systems would have to specify the degree by which the phenomena in question are integrated into the overall process of *structural modifications* within a particular language.

13. This statement requires further discussion. All 5-vowel systems with the sounds in question (no matter whether they have phonemic length contrast or not) have been found with the mid open varieties [ɛ] and [ɔ] or slightly raised variants of them. The fathers of the *International Phonetic Alphabet* failed to notice this problem most probably because our Roman alphabet has not allowed us the choice between [e] and [ɛ] or [o] and [ɔ] (there is no mention of it in Trubetzkoy's *Grundzüge der Phonologie* or even Chomsky and Halle's *The Sound Pattern of English*). The fact that /ɛ/ and /ɔ/ feature as such as open-syllable vowel phonemes in the primary phonological extension system PE_1 of Tai Khamti gets strong support by comparing [ɛ] and [ɔ] with their corresponding closed-syllable associates, that is, [ɛ•] and [ɔ•] (see below in the text). A critical assessment of the closed vs. open syllables dichotomy constitutes another lacuna in phonological analysis.

14. The overall complexity of PE_1^* should be measured within an approach that is buttressed on ever increasing layers of symmetrical complexity in terms of universally valid phonological stratifications.

15. Note that because of key-board limitations I use capital letters for the lax vowel series. In Chomsky and Halle's *Sound Pattern of English*, small letters for the lax vowel series and capital letters for the tense vowel series are used instead.

16. The symbols used in this description are: C = consonant, V = vowel, τ = any one of five tones, C_0^2 = minimum zero, maximum two consonants, C_0^1 = min. zero, max. one consonant, C_f = final consonant. The arrow $\rightarrow$ is used for implications of the kind $p \rightarrow q$ "if p, then q".

17. Words characterized by $|I|$ and $|U|$ as the first in a series of two vowels are conventionally rendered by the corresponding palatal and bilabial continuants so that, phonetically, we obtain consonant clusters in syllable-initial position (cf. 6.3.3.). At least two facts may be gleaned from these observations: (1) the diachronic or comparative treatment of the sounds in question may not necessarily coincide with synchronic phonological requirements such as symmetry principles, plotting into natural classes, or determination of redundancy phenomena; (2) American mainstream generative phonological theory credulously adopted the view that representations of the systematic phonemic level lead straightaway into the history of a language. On the basis of a sizeable body of descriptive data (to be published in a work under progress entitled "Methods of reconstruction for non-historical languages"), I am now in a position to demonstrate that assessments of abstractness in phonological analysis reflect the interplay between the extent of intra-systemic coherence of the segments analyzed and the linguist's own background knowledge of linguistic facts and experience; the historical dimensions resulting from the depth of the procedure in question are a non-causal by-product.

REFERENCES

Biswas, Sukumar. 1966. "The Use of Substantive Verbs in Khamti". *Bulletin of the Philological Society of Calcutta, Acarya Sukumar Sen Felicitation Volume* 6.130-36.

_____. 1966. "A Note on the Khāmtis and their Language". *Professor Birinchi Kumar Barua Commemoration Volume* ed. by Maheswar Neog + Mukunda Madhava Sharma, 169-78. Gauhati: Local Committee, XXII. Session, All India Oriental Conference.

Brame, Michael K. 1972. "On the Abstractness of Phonology: Maltese ʕ". *Contributions to Generative Phonology* ed. by Michael K. Brame, 22-61. Austin: Univ. of Texas Press.

Chomsky, Noam. 1964. "Current Issues in Linguistic Theory". *The Structure of Language: Readings in the Philosophy of Language* ed. by J. A. Fodor & J. J. Katz, 50-118. Englewood Cliffs, N.J.: Prentice-Hall.

Chomsky, Noam and Morris Halle. 1965. "Some Controversial Questions in Phonological Theory". *Journal of Linguistics* 1.97-138. (Repr. in *Phonological Theory. Evolution and Current Practice* ed. by Valerie Becker Makkai, No. 42, 457-85. New York: Holt, Rinehart and Winston, Inc., 1972.)

_____. 1968. *The Sound Pattern of English*. New York: Harper & Row.

Fudge, Eric C. 1967. "The Nature of Phonological Primes". *Journal of Linguistics* 3.1-36.

_____. 1969. "Mutation Rules and Ordering in Phonology". *Journal of Linguistics* 5.23-38.

_____. 1970. "Phonological Structure and 'Expressiveness'". *Journal of Linguistics* 6.161-88.

_____. 1972. Review of *Aspects of Phonological Theory* by Paul M. Postal (New York: Harper & Row, 1968.). *Journal of Linguistics* 8.136-56.

Gedney, William J. 1972. "A Checklist for Determining Tones in Tai Dialects". *Studies in Linguistics in honor of George L. Trager* ed. by M. Estellie Smith, 423-37. The Hague: Mouton.

Glover, Warren W. 1970. "Gurung Tone and Higher Levels". *Occasional Papers of the Wolfenden Society on Tibeto-Burman Linguistics* ed. by F. K. Lehman, Volume III (Tone Systems of Tibeto-Burman Languages of Nepal), Part I: Studies on Tone and Phonological Segments, ed. by Austin Hale and Kenneth L. Pike, 52-73. Urbana: The Univ. of Illinois.

Gogoi, Lila (ed.). 1971. *The Tai Khamtis*. Chowkham, NEFA.
(A compilation of essays on the Khamtis in 7 chapters: 1. History, 2. Ethnology, 3. Art and Culture, 4. Political Relations, 5. Trade and Commerce, 6. Myths and Legends, 7. Language.
Chap. 7 contains:
"The Tai and their Languages", 183-85. By G. A. Grierson, *Linguistic Survey of India*, Vol. I, 1927, Part I, p.50.
"A List of a Few Tai Words", 187-89. By E. T. Dalton, *Descriptive Ethnology of Bengal*, Appendix, 69-70, 1872, p.317.
"A List of Words in the Tai Language", 190-96. By G.A. Grierson, *Linguistic Survey of India*, Vol. II, 1904, p.214.

Lila Gogoi, "A List of English-Ahom-Khamti-Phakiyal Words", 197-202.

Grierson, Sir George A. 1904. *Linguistic Survey of India*, Vol. II. Siamese-Chinese Family, 58ff.

Hyman, Larry M. 1973. "Nupe three years later". *Language* 49.447-52.

Jakobson, Roman, Fant, C. Gordon M., and Halle, Morris. 1969. *Preliminaries to Speech Analysis*. 9th ed. Cambridge, Mass.: MIT Press.

Martinet, André. 1952. "Function, Structure, and Sound Change". *Word* 8.1-32. (Repr. in *A Reader in Historical and Comparative Linguistics* ed. by Allan R. Keiler, 139-74. New York: Holt, Rinehart and Winston, Inc., 1972.)

_____. 1955. *Économie des changements phonétiques*. 3rd ed., 1970. Bern: A. Francke.

Namchoom, Khalayna. *English-Khamti and Khamti-English Dictionary* (in preparation, to be published by the Philology Section, Research Department, Arunachal Pradesh Administration).

Needham, J. F. *Outline Grammar of the Tai (Khâmtî) Language as spoken by the Khâmtîs residing in the Neighbourhood of Sadiya, with illustrative Sentences, Phrase-book, and Vocabulary*. Rangoon, 1893.

Peng, Fred C. C. 1974. "The Place of Generative Phonology in the History of Linguistics". MS., 39p. (Paper presented at the inaugural meeting of The Linguistic Association of Canada and the United States, August 1974, Lake Forest College, Illinois.)

Postal, Paul M. 1968. *Aspects of Phonological Theory*. New York: Harper & Row.

Sampson, Geoffrey. 1970. "On the Need for a Phonological Base". *Language* 46.586-626.

Šaumjan, Sebastian K. 1967. "Phonology and Generative Grammars". *Phonologie der Gegenwart* ed. by Josef Hamm, 215-26. Graz: H. Böhlaus Nachf.

Schane, Sanford A. 1971. "The Phoneme Revisited". *Language* 47.503-21.

Travaux Linguistiques de Prague, 1966. Volume 2: "Les problèmes du centre et de la périphérie du système de la langue".

Wang, William S-Y. 1967. "Phonological Features of Tone". *International Journal of American Linguistics* 33.93-105.

Weidert, Alfons. 1975. *A Componential Analysis of Lushai Phonology*. (= *Current Issues in Linguistic Theory*, 2.) Amsterdam: J. Benjamins B. V.

TAI KHAMTI VOCABULARY

The following are those words which could be identified by Mrs. Khalayna Namchoom one year after they had first been obtained from Mr. Chau Mahala Manpoong. Out of approximately 1900 words, there remained a rest of ca. 80 words, mostly expressives, which could not be identified by Mrs. Namchoom. Since Mr. Manpoong is very well acquainted with Khamti judicial and administrative literature, this vocabulary will contain a number of words rather unusual in colloquial speech. It also lists a considerable number of words from baby talk and child language which Mr. Manpoong was very fond of. At present, Mrs. Namchoom is preparing a Khamti-English and English-Khamti dictionary to be published by the Philology Section, Research Department, Arunachal Pradesh Administration.

ABBREVIATIONS

A.	Assamese
Ch.L.	Child language, baby talk
E.	English
ex.	expressive, of phonaesthetic content
Interj.	Interjection

PHONOLOGIZATION

All morphs are given in phonological writing. Components of REALIZATION RULES applying to this level are shown by Greek letter subscripts (cf. p.21). They apply to the segment upon which they are indexed. If not otherwise shown, the representations of the morphophonological level will be identical with these phonologizations devoid of their componential values. If representations of the morphophonological level differ from the ones of the phonological level, they will be listed by vertical bars after their phonological representation. Only the REGULARIZATION component (α) is given as componential value of this level; other componential values have no bearing on the monomorphemic level of this vocabulary. No attempt has been made to give a morphophonological interpretation of toneless syllables; their phonetic realization usually ranges in a mid-tone height between the high and low tones together with a rather relaxed vowel articulation. Within the translation of items, the term *unit* refers to both classifiers and quantifiers. The number 2 placed after a syllable denotes the reduplication of the syllable.

The vocabulary order is as follows:

A a I i U u ɯ ɯ ɛ ɔ e o k kh ŋ ts s
t th n p ph m l h ¯ _ ˋ ´ ˇ

¯AI$_{v}$ 4th female child

ˋphAI$_{v}$ ¯AU$_{v}$ To be smoky

_AU$_{v}$ To take, accept

ˋAU$_{v}$ ¯pɔt To shorten, to reduce in size

_Aŋ Foul or brackish water

ˋAŋ To be spread

_An To be like this, to do in this way

¯Am To be very good, comfortable

_Am To bewitch, enchant (by magic)

¯a ~ a *Interj.* (refusing)

_a Father's younger sister

ˋa To spread out

´a To open o.'s mouth; to spread o.'s legs

_aI$_{v}$ To feel shy; to evaporate; vapour

´aI$_{v}$ First male child; male person (in references)

_aU$_{v}$ Father's younger brother

¯aŋ A vessel

ˋaŋ Amulet to protect o.s. (espec. against evil spirits)

´aŋ To aspire

¯at 8th female child

_at Two annas

¯an To count

_an To be dissatisfied (Ch.L.)

$_{am}$ 3rd female child

$\backslash_{am}$ To be surprised, perplexed

$_{I_{\sigma}AI_{\upsilon}}$ To be spread over

$\bar{}_{I_{\sigma}AU_{\upsilon}}$ To be bedridden

$\smile_{I_{\sigma}AU_{\upsilon}}$ To complete

$\bar{}_{I_{\sigma}AШ_{\upsilon}}$ To be big; a senior person

$\backslash_{I_{\sigma}AШ_{\upsilon}}$ White fibre in an orange; net-like structure; cobweb

$/_{I_{\sigma}AШ_{\upsilon}} = \backslash_{I_{\sigma}AШ_{\upsilon}}$

$\bar{}_{I_{\sigma}Ak}$ To pinch, to pluck

$\bar{}_{I_{\sigma}Aŋ}$ To stand on o.'s tiptoes

$\backslash_{I_{\sigma}Aŋ}$ To be present, to be

$\bar{}_{I_{\sigma}At}$ To stop (drizzling rain)

$\bar{}_{I_{\sigma}Ap}$ To be tough, difficult

$_{I_{\sigma}Am}$ To have faith; genuine

$\backslash_{I_{\sigma}Am}$ To wet

$\bar{}_{I_{\sigma}a}$ Old woman

$_{I_{\sigma}a}$ To treat

$\backslash_{I_{\sigma}a}$ To display

$/_{I_{\sigma}a}$ Medicine

$\smile_{I_{\sigma}a}$ To break; to spend, to consume

$_{I_{\sigma}aI_{\upsilon}}$ To melt

$\smile_{I_{\sigma}aI_{\upsilon}}$ To be bent, to be in a slanting position

$\backslash_{I_{\sigma}aU_{\upsilon}}$ To be long

$_{I_{\sigma}ak}$ To be troublesome, to be difficult

$\bar{}_{I_{\sigma}aŋ}$ To shake, to beat

$_{I_{\sigma}aŋ}$ To step; rubber

$/_{I_{\sigma}aŋ}$ To dry over a fire

$^{-}I_{\sigma}an$ *Adv.* quite long (as time); difference, distance

$_{-}I_{\sigma}an$ About; area, region, side

$^{\backslash}I_{\sigma}an$ To hang, to cling

$_{-}I_{\sigma}ap$ To sew

$^{-}I_{\sigma}am$ Septic, to be septic (e.g. after a cut, in a wound)

$_{\cup}I_{\sigma}am$ To chew

$^{-}I_{\sigma}Ik$ To be wet, moist

$^{\backslash}I_{\sigma}I\eta$ Female

$^{-}I_{\sigma}It$ To give

$^{-}I_{\sigma}Ip$ To pick up with o.'s finger-tips

$_{-}I_{\sigma}Ip$ *Unit*

$_{-}I_{\sigma}i_{\lambda}U_{\nu}$ To piss

$_{-}I_{\sigma}i_{\lambda}\eta$ To copy the example of others, to imitate

$^{-}I_{\sigma}i_{\lambda}t$ To straighten, to stretch (o.'s legs); to go (off)

$_{-}I_{\sigma}i_{\lambda}t$ To pour water little by little

$_{-}I_{\sigma}i_{\lambda}n$ To get cool

$^{-}I_{\sigma}i_{\lambda}p$ To tread upon

$^{/}I_{\sigma}i_{\lambda}m$ To peep

$^{-}IU_{\nu}$ To call, to shout

$_{-}I_{\sigma}Uk$ To be bad, wicked

$_{-}I_{\sigma}U\eta$ To lend (money)

$^{\backslash}I_{\sigma}U\eta$ Mosquito; to collect

$^{-}I_{\sigma}Ut$ To take out burning firewood from the fireplace; to take without another's consent

$_{-}I_{\sigma}Un$ To hand over

$^{-}I_{\sigma}Up$ To swarm, infest

$^{-}I_{\sigma}Um$ To rely on s.o., to believe

$_{-}I_{\sigma}Um$ To borrow, to lend

$^{\backslash}I_{\sigma}Um$ Bush, shrub

$^{-}I_{\sigma}u$ To give (= $^{-}I_{\sigma}o$)

$^{-}I_{\sigma}u_{\lambda}I_{\nu}$ To give, to lend, to give more (= $^{-}I_{\sigma}ɔI_{\nu}$)

$^{-}I_{\sigma}u_{\lambda}k$ Wild plantain tree

$_{-}I_{\sigma}u_{\lambda}k$ To raise up

$^{-}I_{\sigma}u_{\lambda}ŋ$ To stand on o.'s tiptoes; to stand with attentive mind; to lift (by hand)

$_{-}I_{\sigma}u_{\lambda}p^{2}$ (ex.)(noise of steps in a bamboo house)

$\smile I_{\sigma}u_{\lambda}m$ To wither

$_{-}I_{\sigma}ɯt$ Region, area

$^{-}I_{\sigma}ɯm$ To believe

$_{-}I_{\sigma}ɯm$ To lend, to give a loan

$\smile I_{\sigma}ɯm = \smile I_{\sigma}u_{\lambda}m$

$_{-}I_{\sigma}ɯ$ To point, direct towards

$\backslash I_{\sigma}ɯ$ To shoot

$/I_{\sigma}ɯ$ The membrane or thin skin inside fruits covering the fruit pulp

$^{-}I_{\sigma}ɯk = {}^{-}I_{\sigma}Ik$

$_{-}I_{\sigma}ɯk$ (ex.)(raining)

$_{-}I_{\sigma}ɯŋ$ *Adv.* in a way; to copy

$^{-}I_{\sigma}ɯt$ To give share to

$_{-}I_{\sigma}ɯn$ Area, region, side

$_{-}I_{\sigma}ɛt$ To give little

$^{-}I_{\sigma}ɛm$ To be clever

$\backslash I_{\sigma}ɛm$ To group together, to add more

$^{-}I_{\sigma}ɔI_{\nu} = {}^{-}I_{\sigma}u_{\lambda}I_{\nu}$

$^{-}phuɤn\ \backslash I_{\sigma}ɔI_{\nu}$ To drizzle

$\smile I_{\sigma}ɔI_{\nu}$ To hang (intr.)

$^{-}I_{\sigma}ɔk$ To tease

$_{-}I_{\sigma}ɔk$ To poke, stab, tap

$_{-}I_{\sigma}ɔŋ$ To carry off, take away

$/I_{\sigma}ɔŋ$ To admire

$_{-}I_{\sigma}ɔt$ To drip, drop, trickle

$^{-}I_{\sigma}ɔn$ To hang down

$^{\backslash}I_{\sigma}ɔn$ To ask

$^{/}I_{\sigma}ɔn$ To be disappointed

$^{-}I_{\sigma}ɔp$ To fell, to cut

$_{-}I_{\sigma}ɔp^{2}$ (ex.)(sound caused by carrying heavy things in a bundle)

$^{-}I_{\sigma}ɔm$ To be lean, meagre

$^{\backslash}I_{\sigma}ɔm$ To be less in number; to fell a tree

$^{\smile}I_{\sigma}ɔm$ To dye

$^{-}I_{\sigma}e$ $|^{-}I\varepsilon_{\alpha}|$ To pour or sprinkle water (as in a sacrificial offering)

$^{\backslash}I_{\sigma}e$ $|^{\backslash}I\varepsilon_{\alpha}|$ Paddy store; $^{\backslash}I_{\sigma}e\ _{-}pap$ Library

$^{/}I_{\sigma}e$ $|^{/}I\varepsilon_{\alpha}|$ First female child

$^{-}I_{\sigma}o$ $|^{-}Iɔ_{\alpha}|$ To give

$_{-}I_{\sigma}o$ $|_{-}Iɔ_{\alpha}|$ To be loose; to be slow (as the current of a river)

$^{\backslash}I_{\sigma}o$ $|^{\backslash}Iɔ_{\alpha}|$ To appreciate, admire; admiration

$^{\smile}I_{\sigma}o$ $|^{\smile}Iɔ_{\alpha}|$ To talk about

^{-}Ik To add; to supply

$^{-}Iŋ$ Stake (as in card playing)

$_{-}Iŋ$ To lean

^{-}Im A full belly, to be satisfied

^{-}i Second female child

$^{\backslash}i$ To stretch o.s. or o.'s limbs

$^{/}i$ *Interj.*

$^{-}i_{\lambda}t$ 7th female child

$_{-}i_{\lambda}n$ Vein, artery

ˇU$_{\sigma}$AI$_{\nu}$ To keep

¯U$_{\sigma}$Aŋ Kind of small grass

_U$_{\sigma}$At To stop (as rain or downpour; cf. ¯I$_{\sigma}$At)

`U$_{\sigma}$An Day, sun

`U$_{\sigma}$Am To take under o.'s jurisdiction

¯U$_{\sigma}$a A section, division or quarter (of fruits like orange, jack-fruit, etc.); a religious period (Aug.-Nov.)

_U$_{\sigma}$a To tell; must

`U$_{\sigma}$a Unit (stretched arms)

¯U$_{\sigma}$aI$_{\nu}$ Reed, cane

`U$_{\sigma}$aI$_{\nu}$ To be over, finished (as a feast)

ˇU$_{\sigma}$aI$_{\nu}$ To chop off; to bend (intr.)

¯U$_{\sigma}$aU$_{\nu}$ Pass, passage, traverse

`U$_{\sigma}$aU$_{\nu}$ To be arrogant, proud

¯U$_{\sigma}$ak Kind of lack, A. dhunā

_U$_{\sigma}$ak To scratch

¯U$_{\sigma}$aŋ To be surprised, perplexed

`U$_{\sigma}$aŋ Compound (with reference to a house, etc.)

¯U$_{\sigma}$an Cup, mug; to be sweet; to sow (seed)

`U$_{\sigma}$an (ex.)(beating)

¯U$_{\sigma}$ap To be dented in

_U$_{\sigma}$ap^{2} (ex.)(to croak - as a frog)

ˇU$_{\sigma}$am To catch

_UI$_{\nu}$ To feel relieved

/UI$_{\nu}$ *Interj.*

_U$_{\sigma}$IU$_{\nu}$ To go away; to be swift

¯U$_{\sigma}$It (ex.)(speedy)

_U$_{\sigma}$It To smooth a.th. (like a bamboo with a knife)

¯U$_{\sigma}$In To turn, to turn o.'s head

¯U$_{\sigma}$Ip (ex.) = _li$_{\lambda}$p

$_{\sigma}$Ip = $^{-}{}_{\sigma}$Ip

$^{-}{}_{\sigma}$i To comb; a comb; bunch (as of fruits, e.g. bananas)

$_{\sigma}$i (ex.)(to pass along)

$^{\backprime}{}_{\sigma}$i A fan; to fan

$^{\backprime}{}_{\sigma}i_{\lambda}ŋ$ To fence; to wind a sacred thread around a house

$_{\sigma}i_{\lambda}t$ To drive (cattle); $_{\sigma}i_{\lambda}t$ ˷nAm To scoop, to draw (water)

$_{\sigma}i_{\lambda}p^{2}$ (ex.)(the noise of trees bending in the wind)

$_{\sigma}$Uk To flare, flare up, blaze up

$_{\sigma}$Un^{2} (ex.)(to feel hot)

$^{-}{}_{\sigma}$Up (ex.)(to eat quickly)

$^{-}{}_{\sigma}u_{\lambda}I_{\nu}$ a $^{\backprime}ki_{\lambda}U_{\nu}$ To bless

$_{\sigma}u_{\lambda}ŋ$ *Prep.* in between; to cease (as rain)

$^{-}{}_{\sigma}u_{\lambda}t$ To hit; to release, to shoot off an arrow

$_{\sigma}u_{\lambda}t$ Sin; to lift up (any piece of cloth, e.g. a curtain or a frock)

$^{-}{}_{\sigma}u_{\lambda}n$ Ministerial messenger

$^{-}{}_{\sigma}$ɯt To go fast

$_{\sigma}$ɯt (ex.)(trouble overcome)

$^{-}{}_{\sigma}$ɯp (ex.)(to catch)

$_{\sigma}$ɯp = $^{-}{}_{\sigma}$ɯp

$_{\sigma}$ɯ To fly off, run off speedily or hurriedly

$_{\sigma}$ɯk To fan; to clear the jungle; to drive off flies

$^{-}{}_{\sigma}\varepsilon U_{\nu}$ = $^{-}{}_{\sigma}aU_{\nu}$

$_{\sigma}\varepsilon$k Saliva (of children)

$_{\sigma}\varepsilon$t To drive the cattle

$^{-}{}_{\sigma}\varepsilon$n To jump; bangle

$_{\sigma}\varepsilon$n To throw

$^{-}{}_{\sigma}$ɔ |$^{-}$Uɔ$_{2}$| = $^{-}$phɔ (ex.)

$_{\sigma}$ɔ |$_{-}$Uɔ$_{2}$| To gush, to dump; = $^{-}{}_{\sigma}$ɔ

$^{-}$tsɔk $_{\sigma}$ɔk To be or bec. hollow

ˋU$_{\sigma}$ɔn To invite

ˋU$_{\sigma}$ɔm To admit, submit, surrender

_U$_{\sigma}$e |_Uɛ$_{\alpha}$| To move over, to make room

ˊU$_{\sigma}$o |ˊUɔ$_{\alpha}$| Fifth female child

¯Uk To make noise; to shoal (as fish)

_Uk ¯tsa Property

ˋUŋ (ex.)(rumour)

_Ut Brick (A. iṭā); camel (A. uṭ)

¯Un To warm up

_Un To swallow (= _ɯn)

_Up To mend with a patch, to add more wool for stitching clothes

ˊUm To hold by o.'s hand

¯u To stay, reside

_u To gather together; to do or act cooperatively

¯u$_{\lambda}$I$_{\upsilon}$ To sing

ˋu$_{\lambda}$I$_{\upsilon}$ *Interj.* Hallo!

¯u$_{\lambda}$k Sixth female child

¯u$_{\lambda}$t To close as with a bung or stopper etc. to prevent water from leaking; to stop from going on a particular way (as cattle); to fix s.th. in between

ˊu$_{\lambda}$n To be soft

_u$_{\lambda}$m To keep in o.'s mouth

_ɯt Mental satisfaction, relief

_ɯn = _Un

¯ɯp Scarcity

¯ɯm To be satisfied, full (belly)

¯ɯ *Interj.*

ˋɯ *Interj.* okay!

ᴗʷ To belch

¯ɯIᵥ To sing, to recite

ˋɯIᵥ *Interj.* hallo!

ˊɯŋ To aspire

¯ɯp = ¯ɯp

ˊɯm To overflow, inundate

¯ɛ |¯ɛ₂| *Interj.*

¯ɛk Yoke

¯ɛŋ Water-vessel

¯ɛt 8th female child

_ɛt² (ex.)(water boiling in the rice-pot)

¯ɛn Kind of bird

¯ɛp Tin container

_ɛp² (ex.)(water bubbles in boiling rice)

_ɛm To keep near the fire

_ɛʔ |_ɛʔ₂| = _hɛ

$^{-}$ɔI$_{\upsilon}$ To feed

$_{/}$ɔI$_{\upsilon}$ Sugar-cane

$^{-}$ɔI$_{\upsilon}$ʔ ^{2} |$^{-}$ɔIʔ$_{2}$| (ex.)(cry of cow or calf)

$^{-}$ɔk To come out, appear

$^{-}$ɔŋ To be successful; to cook meat or fish in spices without oil

$^{-}$ɔn To be small

$_{-}$ɔn To guide

$_{-}$ɔp To stitch

$_{/}$ɔm To mend or stitch with a piece of cloth; $_{/}$pha $_{/}$ɔm A napkin

$^{-}$ɔʔ |$^{-}$ɔʔ$_{2}$| *Interj.* take it!

$^{-}$e |$^{-}\varepsilon_{\alpha}$| To aspire; ambition

$^{-}$o |$^{-}$ɔ$_{\alpha}$| To take care of

$_{-}$o |$_{-}$o$_{2}$| *Interj.*

$^{-}$kAI$_{\upsilon}$ Fowl, cock, hen

$_{-}$kAI$_{\upsilon}$ To be far

$_{/}$kAI$_{\upsilon}$ To light

$^{-}$kAU$_{\upsilon}$ To be old (with reference to things)

$_{-}$kAU$_{\upsilon}$ I (First p.sg. personal pronoun)

$_{\backslash}$kAU$_{\upsilon}$ To bore (s.o.), to tease, bother

$_{/}$kAU$_{\upsilon}$ 9; to tie o.'s hair into a knot

$_{\cup}$kAU$_{\upsilon}$ To be industrious; owl

_kAɯ᷄ To bulge

/kAɯ᷄ To be near

¯kAk Big ladle or spoon

_kAk To be competent, capable

/kAŋ To be alert, to hearken; to open (as umbrella), to put up (as a curtain), to spread or lay (said of garments)

¯kAt Bitter cold; to bite off with the teeth; market

_kAt To be active, industrious

hu˧m _kAn *Adv*. together

`kAn A handle; ¯khu˧ŋ `kAn To quarrel

/kAn To restrain; to have patience

ᴗkAn To fight; to feel idle (due to opium)

_kAp To be filled up, overcrowded, tight

¯kAm To be condensed, concentrated (espec. in colour)

_kAm Sin

`kAm To touch, to grip

ᴗkAm To be suppressed (as urine); to crowd; to support (by fixing a post)

¯ka To go; to pain

_ka Crow; scarcity

`ka To be off, go off (in driving out spirits)

/ka To dance; rice seedling

ᴗka To invest

¯kaI᷄ To construct a bridge

`kaI᷄ To itch (in the gorge and on the skin, e.g. after having eaten a not well cooked arum-root)

/kaI᷄ To take a small quantity of a.th. with the finger, to hook out with the finger

¯kaU᷄ To commemorate; to count

/kaU᷄ The calf of the leg

_kak To divide

¯kaŋ A cross-bow

_kaŋ Middle; stag, hart; to be little in quantity

ˋkaŋ To wish (a spirit or a.th. away); the chin

ˊkaŋ Bone; to be wide

ˇkaŋ House gate

¯kan To scratch; to paint

ˋkan To crawl (said of children)

ˇkan To castrate; a bundle, piece

¯kap To connect

_kap To bite

¯kam Fate

ˋkI$_{\sigma}$Aŋ (*Question marker*)

ˋkI$_{\sigma}$a = ˋkI$_{\sigma}$Aŋ; a ˋkI$_{\sigma}$a To show authority

ˊkI$_{\sigma}$a Marwari businessman (A. **keñā** = /kɛ̃a/)

¯kIU$_{\upsilon}$ Constriction; the slender or squeezed in or pinched in part of a.th.; fate

ˋphUŋ ¯kI$_{\sigma}$o |¯kIɔ$_{\alpha}$| *N.pr.* ("successful")

_kIk To grind medicine; odd number

¯kIŋ Small off-branches in thread or flowers

ˊkIŋ To roll

ˇkIŋ To be green

¯kIt To touch

_kIt To touch, to toss

¯kIn To take a vow or an oath

_kIn To eat

¯kIp Pincers

ˋkIm Kind of tweezers for plucking hair

¯ki *s.* ¯hUk

_ki To unknot, to release, to unfasten

ˋki To be self-conceited, haughty

¯ki$_{\lambda}$U$_{\upsilon}$ To hook

_ki$_{\lambda}$U$_{\upsilon}$ To boil into sirup by stirring

ˋki$_{\lambda}$U$_{\upsilon}$ *s.* ¯U$_{\sigma}$u$_{\lambda}$I$_{\upsilon}$

/kiλUv *s.* ¯hUŋ

\kiλŋ A stand for a pot

¯kiλt The scale of a fish

\kiλn A well-spun rope

¯kiλp To pick up, to peck

_kUIv Cotton

\kUIv *Interj.*

ᵕkUIv To excavate, to turn the pages, to take out

_kUk² (ex.)(beating sound)

¯kUŋ To be bent, curved; table

\kUŋ Riverside; island

pa /kUŋ Prawn

¯kUt Scarcity; *adv.* in need

_kUt To lose; to be dead

¯kUp Leaf umbrella

_kUp *Unit* (pairs of objects)

¯kUm To be complete in number

_kUm To cover

ᵕkUm To protect, to look after, to take care of

¯ku Chair; ᵕkAm ¯ku Chalk

/ku To take a loan

ᵕku Section, branch, group; to hit; (ex.)(hitting); = \ki

¯kuλIv *Interj.*

/kuλIv Banana

_kuλŋ A bow; to be hollow

_kuλn To uproot

\kuλn Man

/kuλn Buttock

ᵕkuλn To feel uneasy

¯kuλp To be paired together

_kuλp = ¯kuλp

ˊkuˌm To bow down

ˬkɯIᵥ To look in a book, to check, to search

¯kɯp *Post-V.* firmly, tightly

ˋkɯm To be tied up, knotted

¯kɯ *Interj.*

_kɯ Salt

ˬkɯ To forget, not to remember

¯kɯIᵥ *Interj.*

ˋkɯIᵥ *Interj.*

¯kɯk To persevere, to be laborious, to be sincere

_kɯt To cut into pieces

¯kɯn = _kɯt

_kɛ² | _kɛ₂ | (ex.)(bearing any hardship)

_kɛUᵥ² (ex.)(chirping)

_kɛk To memorize

_kɛŋ To mix (as in food)

ˋkɛŋ Dwarf

ˬkɛŋ To notch

¯kɛt To prevent from going ahead, to encircle (with reference to cattle)

_taIᵥ _kɛt To hang o.s.; _taIᵥ _kɛt ˬnam To drown o.s.

¯kɛn To be hard

_kɛn Centre; shield

¯kɛp Paddy husk

_kɛp Roof

¯kɛm To attempt

_kɛm Crown prince

ˊkɛm Cheek; camp (E.)

_kɔ | _kɔ₂ | *Interj.*

¯kɔIᵥ Third male child

_kɔIᵥ The last child

ˋkɔI$_{\cup}$ *Interj.*; to be separated

_kɔk A drinking cup or mug

¯kɔŋ To curve, to hook (intr.)

_kɔŋ Kettle-drum; to heap together

/kɔŋ To be hollow; a pipe

$_{\cup}$kɔŋ Poison

¯kɔt To catch hold of by embracing

_nu$_{\lambda}$k ¯kɔn Kind of bird

/kɔn *Unit* (counting things)

$_{\cup}$kɔn To scoop

¯kɔp *Unit* (both open hands)

_kɔp To cling

ˋkɔm To lower o.s., to submit, to subordinate

¯ke |¯kɛ$_{\alpha}$| To be old, ripe; addr. elder person

¯ko |¯kɔ$_{\alpha}$| To begin; to pile up earth

_ko |_kɔ$_{\alpha}$| To be afraid of; bunch (of flowers)

$_{\cup}$ko |$_{\cup}$kɔ$_{\alpha}$| Friend

ˋkla Stranger, foreigner; ˋmAn ˋkla Potato

¯khAI$_{\cup}$ Egg; to lay eggs

_khAI$_{\cup}$ To tell

ˋkhAI$_{\cup}$ Dirt, filth

/khAI$_{\cup}$ To fall sick, sickness

¯khAU$_{\cup}$ To shake; horn; the heddles of a loom; *s.* ¯hu ¯khAU$_{\cup}$

/khAU$_{\cup}$ Rice; to go inside

¯khAɯ$_{\cup}$ To dry up

_khAɯ$_{\cup}$ To like

¯khAk To be active, laborious

¯khAŋ To confine

_khAŋ Resin; wax (used as seal)

ˋkhAŋ To sound, to murmur

ˇkhAŋ The dam of a river

¯khAt To cut into pieces; a cut piece; broken, torn

_khAt To prevent; to build

¯khAn Price; torrent; hatred

ˊkhAn To prevent, obstruct

_khAm Night (= _kham)

ˋkhAm Gold

¯kha To search; thigh

_kha Branch

ˋkha Thatch; branch of a clan

ˊkha Servant, slave

ˇkha To criticise, to backbite

¯khaI$_{\nu}$ To sell; to turn

ˋkhaI$_{\nu}$ Buffalo; to take out of o.'s mouth

ˇkhaI$_{\nu}$ To move, remove, shift

¯khaU$_{\nu}$ To be white

ˋkhaU$_{\nu}$ To be spoiled

ˇkhaU$_{\nu}$ To be half-ripe

_khak To be or become loose (as seam)

¯khaŋ Top (toy); to throw; Naga people

ˋkhaŋ To stand together

ˇkhaŋ To get stuck in the middle (of a cylinder or tube); to halt

_khat Gunpowder

¯khan Axe; to scratch

ˋkhan To count

ˇkhan Idleness; ˊnɛŋ ˇkhan To stretch o.s. or o.'s limbs

¯kham To cling, to stick to; to bear, to endure

_kham = _khAm

˨kham Speech

/kham To cross over

˨khIᵟa To drop down, to shit (= /khi)

˘khIUᵥ Ghee (A. ghiu)

_khIk Division, group, human nature

¯khIŋ Ginger; to weigh

˨khIŋ Body

¯khIt To kick

_khIt (ex.)(the chattering of monkeys)

¯khIn To pain (said of the hands and legs); to trim, to smooth

¯khIp Bifurcation

_khIp Step; *unit* (the span of the fingers)

¯khi To ride; to worry

˨khi[2] To explain thoroughly

/khi To pass stool (= ˨khIᵟa)

¯khiλUᵥ To be green

/khiλUᵥ Tooth

¯khiλŋ To complete; shelf

_khiλŋ To bind a rope in order to hang up s.th.

¯khiλt Frog, toad

a _khiλt Affection, love

¯khiλm Needle

_khUIᵥ To be evident, clear

_khUk[2] (ex.)(laughing)

˨khUŋ On land, up

¯khUt To dig (out)

_khUt To scratch, to scrape off

¯khUn To be dirty; sovereignty

/khUn To be deposited, be crowded

¯khUp Hoof

_khUp Step

¯khUm To be bitter, astringent

_khUm To be blunt

_khu To cut and clear the jungle

¯khuɪ̯ᵛ To scrape out or off; _lUk ¯khuɪ̯ᵛ Son-in-law

_khuɪ̯ᵛ ¯khuʔt To spit out

ˬkhuɪ̯ᵛ To recollect or talk about past events

¯khuʔk 6th male child

_khuʔk Mortar

¯khuʔŋ To dig up with the fingers

ˬkhuʔŋ Circle; region

¯khuʔt To coil

¯khuʔn Body hair, coat (of an animal)

_khuʔn Pant

ˬkhuʔn To stir

¯khuʔp To itch

_khuʔp To join, to meet

¯khuʔm To attack

ˋkhuʔm Blade of knife

ˊkhuʔm To be topsyturvy

_khɯɪ̯ᵛ To be evident, clear

¯khɯk Bamboo fishing basket

¯khɯŋ To sieve, winnow; round winnowing basket

¯khɯt To reach after following

_khɯt To reach (with o.'s hands); _khɯt² (ex.)(the sound of biting teeth)

¯khɯn To return, give back

ˋkhɯn To convalesce

ˊkhɯn To climb up

¯khɯp Pincers

_khɯ̈p *Unit* (stretched-out thumb and forefinger)

¯khɯ To lie on the way

ˋkhɯ To creep (as a creeper); a bunch

ˬkhɯ To behave unobligingly, disobedient, unmoved

_khɯk To be tiresome

¯khɯŋ To be strong

_khɯŋ Property; to be equal

¯khɯt = ¯khɯ̈t

_khɯt = _khɯ̈t

ˋkhɯm To be scattered

_khɯʔ |_khɯʔ$_2$| To be devoted to, to be sincere

_khɛ |_khɛ$_2$| = _khe

ˋkhɛ = ˋkhI$_ʊ$a

ˋkhɛU$_ʋ$ To get dirty or polluted

¯khɛk To operate, to cut

_khɛk Rubbish; **a _khɛk** To be urgent

¯khɛŋ To be hard

_khɛŋ Shin

ˋkhɛŋ Hanging platform over a fire, or ceiling

ˬkhɛŋ Third female child

¯khɛt To be aware

_khɛt Boundary jurisdiction

¯khɛn Shoulder

_khɛn The name of any clan

ˋkhɛn To recover from disease; to request

¯khɛp Bundle, piece

_khɛp To be burnt (as food)

ˊkhɛm = _khɛp

¯khɔI$_ʋ$ To sit cross-legged; to cross, to crossbreed

ˍkhɔI$_{\vee}$ To encircle, to surround

ˋkhɔI$_{\vee}$ Male organ

ˍkhɔk Room (of a house)

¯khɔŋ Property

ˊkhɔŋ Basket

¯khɔt To throw off, reject, to give up

ˍkhɔt (ex.)(up to level)

¯khɔn Soul; brushwood

ˋkhɔn To move, to swing

ˊkhɔn To be gathered or collected at one place

ˇkhɔn Stick

¯khɔp Edge, border

ˍkhɔp To rejoin, gather again

ˍkhɔm A slope

ˊkhɔm To turn upside down, to reverse

¯khe |¯khɛ$_{\alpha}$| Chinese; fishing-net; to scratch, to stir

ˍkhe |ˍkhɛ$_{\alpha}$| To be raucous, hoarse, coarse

ˋkhe |ˋkhɛ$_{\alpha}$| Water-course (of a river, pond, or rainwater)

ˊkhe |ˊkhɛ$_{\alpha}$| To exchange words (as in a quarrel between two parties)

¯kho |¯khɔ$_{\alpha}$| To laugh; bridge; spade

ˋkho |ˋkhɔ$_{\alpha}$| Neck

ˊkho |ˊkhɔ$_{\alpha}$| A bunch; to fry

ˇkho |ˇkhɔ$_{\alpha}$| To be greedy

ˊkhɔŋ ¯khla Kind of basket

ˍkhla To pour; ¯kho ˍkhla To laugh

˜ŋAI$_{\vee}$? |˜ŋAI?$_2$| *Adv.* just now

˜ŋAU$_{\vee}$ To keep silent

/ŋAU$_{\vee}$ Base, bottom, ground

˜ŋAɯ$_{\vee}$ Idiot, stupid person, = A. **hojā**

_ŋAt^2 (ex.)(seriously sick)

˜ŋAn To be hard-hearted

˜ŋAp To be fixed properly

_ŋAp (ex.)(annoyed at other persons' teasing)

\ŋAm To hatch

◡ŋAm To get angry

˜ŋa To threaten

\ŋa Sesamum; the tusk of an elephant

_ŋaI$_{\vee}$ To be easy

\ŋaI$_{\vee}$ *Unit* (meal)

˜ŋaU$_{\vee}$ To bother s.o.

_ŋaU$_{\vee}$ To try to gripe

_ŋak̀ To open (as a door or a trunk)

˜ŋan To be called sexy

\ŋan Jaundice

◡ŋan A cobra

_ŋap^2 (ex.)(breathless or a state of gasping due to exhaustion)

˜ŋam To challenge

_ŋam Fork; bifurcation

\ŋI$_{\sigma}$a To meet the point, to correct, to find

_ŋIt (ex.)(heavy rain)

˜ŋi To fit tightly, to be fixed up properly

_ŋi Second male child

\ŋi Barking deer; kind of disease

\ŋi$_{\lambda}$U$_{\vee}$ System

/ŋi$_{\lambda}$U$_{\vee}^2$ (ex.)(the mewing of a cat)

¯ŋUp (ex.)(to be silent)

_ŋUp = ¯ŋUp

ˋŋu Snake

_ŋu$_{\lambda}$I$_{\upsilon}$ To become strengthless

¯ŋu$_{\lambda}$t = ¯khu$_{\lambda}$t

¯ŋu$_{\lambda}$p (ex.)(hitting hard)

_ŋu$_{\lambda}$p To close the door

ˋŋu$_{\lambda}$m To grope

ˇŋu$_{\lambda}$m To shut

_ŋ$\Box$t^{2} (ex.)(tremor)

¯ŋ$\Box$n To be adamant

¯ŋ$\Box$p (ex.)(to be silent)

_ŋ$\Box$p = ¯ŋ$\Box$p

/ŋω To be careless

_ŋωk Crocodile

_ŋωn Point, line (abstr.)

ˋŋωn Money, silver

ˋŋɛ = ˋŋI$_{\sigma}$a

¯ŋɛU$_{\upsilon}$ To mew; to be afraid of

ˋŋɛŋ To argue, quarrel

/ŋɛŋ Hip

_ŋɛt^{2} (ex.)(heavy)

¯ŋɛn Knowledge, wisdom; to show the teeth

_ŋɛp To control

¯ŋɛm To lie in wait to attack s.o.

_ŋɛm To pair

_ŋɛʔ^{2} |_ŋɛʔ$_{2}$| (ex.)(heavy)

_ŋɔ |_ŋɔ$_{2}$| To make noise by talking (Ch.L.)

_ŋɔI$_{\upsilon}$ To be weak

¯ŋɔk To bend, curve

_ŋɔk ˋkho To nod

◡ŋɔŋ = ¯kɔŋ

¯ŋɔt² (ex.)(shaking)

ˋŋɔn Island

¯ŋɔp To bend (e.g. paddy when full of grain, the branches of a tree when full of fruits)

¯ŋɔm To stalk, sneak

ˋŋɔm To submit o.s. to s.o. else

◡ŋɔm To bend (intr.)

ˋŋo |ˋŋɔ$_{\alpha}$| Bull, cow

◡ŋo |◡ŋɔ$_{\alpha}$| Fifth male child

¯tsAI$_{\nu}$ (ex.)(nasty)

/tsAU$_{\nu}$ Form of address to any male person, Mr.; father; owner

◡tsAU$_{\nu}$ To be early, quick

_tsAɯ$_{\nu}$ Mind; yes; to correct

ˋtsAɯ$_{\nu}$ To be concerned with; ˋmɯŋ ˋtsAɯ To o.'s heart content

◡tsAɯ$_{\nu}$ To engage or to order s.o.

ˋtsAŋ Hatred

¯tsAt To instruct, to forbid

_tsAt Life period, century, generation

_tsAn To draw, to pull

ˋtsAn *Adv.* up

◡tsAn Layer

¯tsAp To perch on a branch (as a bird); to light a cigarette

_tsAm Fisning net

◡tsAm Black colour, blackish

¯tsa To cover

_tsa To be useful

ˋtsa To be rough

◡tsa Share, portion; to scold, forbid

¯tsaI◡ To use; to deal with

ˋtsaI◡ Male

/tsaI◡ To snatch

◡tsaI◡ To be awry, oblique

ˋtsaU◡ To take out of a number or mass of things; to find

/tsaU◡ To stew, boil

_tsak Engine, machine; to spade

¯tsaŋ Elevated look-out in jungle

_tsaŋ To know

ˋtsaŋ To clear (as jungle)

/tsaŋ To hire

◡tsaŋ Elephant

¯tsat (ex.)(all of a sudden - to go)

ˋtsan Corridor

/tsan To be fed up

¯tsap To interrupt (e.g. a discussion)

_tsap (ex.)(to cast o.'s skin)

¯tsam To lead a luxurious life

ˋtsam To attempt; braid, fringe

¯tsIk Top (of tree, house)

_tsIk To be joined together, related

¯tsIŋ To cut off

ˋmAn _tɔŋ _tsIŋ Arrowroot

¯tsIt To throw away a pieceful of foodstuff purchased (in the belief that an evil spirit might be in the food)

¯tsIn Clitoris

◡tsIn Piece (as of cloth)

_tsIp Extinction; to be or bec. quiet

¯tsIm To pretend as to have forgotten about a borrowed thing

_tsIm To fix a prop so that two things are fixed together

ˋtsIm To be tasty; to taste; ˋtsIm ˋkIm Ingredient of spices; name of a plant used in making spices

¯tsi To roast in the fire

_tsi To be plenty, full of; name

/tsi *Interj.*

ᴗtsi To show, to point

ˋtsi$_{\lambda}$U$_{\upsilon}$ To be swift, speedy; to do quickly

¯tsi$_{\lambda}$t 7; 7th male child

_tsi$_{\lambda}$t To wipe (off)

_tsi$_{\lambda}$n To slit, split, carve

¯tsi$_{\lambda}$p To pain

¯tsU$_{\sigma}$a (ex.)(talking to a child: nasty)

_tsUI$_{\upsilon}$ (ex.)(sizzling or splashing noise)

¯tsUk Spire-like top of a house; any tool in the shape of a spire

_tsUk To calculate

¯tsUŋ To provide with; to complete

_tsUŋ To lead by the hand

ˋtsUŋ Coffin

¯tsUt To be tasteless

_tsUt To finish

_tsUn To recover from sickness; to be clear

ˋtsUn Lead

/tsUn To mix rice with curry or a.th.; to be shallow

¯tsUp To suck; to kiss

_tsUp To dip, to wet

¯tsUm To dip

_tsUm Flock or herd of animals

˜tsu To be spoiled, decomposed

ˋtsu To agree, to make a compromise; to come close to

ˊtsu = ˜tsu

ᵕtsuˌIᵥ To calculate

_tsuˌŋ Rhinoceros

_tsuˌn Robber, dacoit

ˋtsuˌm To be glad, happy

ᵕtsɯIᵥ To keep hanging, bending, curved

˜tswIᵥ = ᵕtsɯIᵥ

ˋtswŋ The practice of expertly handling a sword

ᵕtswŋ The maid-in-waiting of a princess

˜tswt^2 (ex.)(to chase away; also in the sense of ˜tsIt)

˜tsɛ |˜tsɛ$_2$| To be nasty; to feel disgusted, to be nauseated

_tsɛ |_tsɛ$_2$| = ˜tsɛ

_tsɛUᵥ (ex.)(frying noise)

_tsɛŋ To be clear (in speech), understandable

˜tsɛk To tear into pieces

_tsɛt To be pure

˜tsɔIᵥ To be pointed

_tsɔIᵥ To help, cooperate

ˋtsɔIᵥ A borer, an awl; to spread out (as an infectious disease)

ᵕtsɔIᵥ Addressing a woman in respect

˜tsɔk To take out; ˜tsɔk _lIk = ˜mak _lIk, *s.* _lIk

_tsɔk To get hurt by nail or thorn; corner

˜tsɔŋ To keep provisions

_tsɔŋ System, method

ˋtsɔŋ Buddhist temple

ˊtsɔŋ Umbrella

ᵕtsɔŋ False hair

˜tsɔt To get a share; to cover

˗tsɔt To be empty; to exhaust

¯tsɔn To be small in quantity

/tsɔn Mongoose

ˬtsɔn To touch, to hit; to scoop

¯tsɔp To check

˗tsɔp To be tired, weak (in agony)

¯tsɔm To group things together, to arrange in a matching way

\tsɔm To follow

¯tse |¯tsɛ$_{\alpha}$| To be crowded, to be festive (as a bazar or a fête)

˗tse |˗tsɛ$_{\alpha}$| To be abundant; to dip into water, to soak, to drench

\tse |\tsɛ$_{\alpha}$| A shop

/tse |/tsɛ$_{\alpha}$| Paper

˗tse? | ˗tse?$_{2}$| Bosom, breast

¯tso |¯tsɔ$_{\alpha}$| To put on fire, to boil for a long time

˗tso |˗tsɔ$_{\alpha}$| Period of time, generation

\tso |\tsɔ$_{\alpha}$| To join, to accompany

ˬtso |ˬtsɔ$_{\alpha}$| Spoon

¯sAI$_{\nu}$ 4th male child; to push

\sAI$_{\nu}$ Kind of basket used as fish-trap

/sAI$_{\nu}$ Intestines

¯sAU$_{\nu}$ A post or pillar

\sAU$_{\nu}$ To stand

/sAU$_{\nu}$ To be cloudy

¯sAɯ$_{\nu}$ To put, place

¯sAŋ ˗an *Pole*. if so

ˬsAŋ Bamboo pole for creeper-like vegetables

¯sAt Mat to dry paddy; roof

ˍsAt To be tight, filled up

¯sAn To shake o.'s body (applied to animals)

ˋsAm To inject, to hit by spear

/sAm Spear for fishing

ˬsAm *Adv.* once more

¯sa To be advanced, more; a tissue (?)

ˍsa fifth male child

ˋsa To start a work

/sa To cut or chop into small pieces

ˬsa A basket

¯saI$_{\vee}$ A lace, rope

ˋsaI$_{\vee}$ Sand

/saI$_{\vee}$ To pay back

¯saU$_{\vee}$ Girl

ˋsaU$_{\vee}$ 20

/saU$_{\vee}$ Long pole or stick

¯sak To fling out (as horse); pestle

ˍsak Leavings; food left after a meal; to wash clothes

¯saŋ To propose

ˋsaŋ To pay; to enshrine

/saŋ *Unit* (kinds of material)

¯sat = ¯tsat

¯san To make a fence; to weave a basket

ˍsan The Shan people; to spread out

ˋsan To be healthy

ˍsap (ex.)(boasting too much)

¯sam 3; third male child

¯sa? |¯sa?$_2$| Let us...!

¯sIU$_{\vee}$ A chisel; a pimple

/sIU$_{\vee}$ To split into two uneven parts

_pak ¯sIk A ditch for polluted water

_sIk *Unit* (portion or part)

¯sIŋ Government

\sIŋ To throw

/sIŋ To eat or drink up completely; to come to an end, to extinguish (as candle, light, life, etc.)

¯sIt To be clever, cunning

¯sIn Doctrine, principle

/sIn A petticoat-like garment worn by Assamese women, A. **mekhelā**

¯sIp 10

¯si 4

_si (ex.)(to pass urine)(Ch.L.)

¯si$_{\lambda}$ŋ To sound; a sound

/si$_{\lambda}$n Thorn; to get defeated (in game)

¯si$_{\lambda}$p To insert

/si$_{\lambda}$m To be pointed, sharp

\sUI$_{\upsilon}$ To chase away

¯sUk To be ripe

_sUk To wash

¯sUŋ To be tall, high

_sUŋ (ex.)(wild growth of plants or hair or a.th.)

\sUŋ To use; to follow (a.th.)

¯sUt To end, finish; mosquito net

_sUt To vacate, to make room for; _sUt^{2} (ex.)(sobbing)

¯sUn Lime (A. **cūṇ**)

_sUn^{2} (ex.)(dense jungle)

¯sUp To fix; to wear (as ornament)

_sUp *Unit* (counting groupwise; counting one after another)

¯sUm Kind of fishing tool; to put more, to add

\sUm To lose

∪sUm A hut

¯su You (pl.); to hint at; to mould, shape

/su To agree

¯su$_{\lambda}$I$_{\upsilon}$ To be distorted, warped

/su$_{\lambda}$I$_{\upsilon}$ To hate; hatred

¯su$_{\lambda}$ŋ To give back, to return, offer

¯su$_{\lambda}$n To weave, knit; garden

¯su$_{\lambda}$p Mouth

_su$_{\lambda}$p To slope, to crook, to pull down in order to reach

/su$_{\lambda}$m To be sour

ˬsu$_{\lambda}$m To be diagonal, inclined

¯sɯt^{2} = ¯tsɯt^{2}

¯sɯ Tiger; to place a carpet or clothes; to lay a carpet on the floor; to make a bed

\sɯ To be daring, adventurous

/sɯ Camisole, shirt, blouse

¯sɯI$_{\upsilon}$ = ¯tsɯI$_{\upsilon}$

¯sɯk War; ¯sɯk^{2} (ex.)(lifting up a weight)

_lap ¯sɯŋ To hide

_sɛ |_sɛ$_{2}$| To have an itching or uncomfortable sensation

_sɛU$_{\upsilon}$ = _tsɛU$_{\upsilon}$

/sɛU$_{\upsilon}$ To catch, to arrest

_sɛk *Adv.* momentary, at time; opportunity

¯sɛŋ (affectionate call to a male child)

\sɛŋ To pay in exchange

¯sɛt^{2} (ex.)(sharp)

¯sɛn To shout; the gill of a fish; 100.000

\sɛn To fry

/sɛn To be beautiful

¯sɛp To itch, burn (e.g. iodine in a wound, eyes due to sleeplessness)

_sɔ |_sɔ$_{2}$| To pass urine (Ch.L.)

¯sɔI$_{\upsilon}$ = ¯tsɔI$_{\upsilon}$

˧sɔI$_{v}$ To cut into small pieces; to pull

/sɔI$_{v}$ Ornaments, trinkets, attire

˗sɔk Elbow

_sɔk To check up, to enquire

˗sɔŋ 2; to get frightened

_sɔŋ To get tired

˧sɔŋ A basket; to elbow

ᵕsɔŋ To cut in order to make sharp or pointed

˗sɔt To set fire to, arson

_sɔt Cartridge; paper-bag; a single flower in a paper used in offering

˗sɔn To teach; to loosen (as the blade of a knife)

_sɔn To seek shelter

˧sɔn To roof

/sɔn A kind of fish-trap

_sɔp^{2} (ex.)(chewing)

˗sɔm = ˗tsɔm; to give voluntarily

˧sɔm Kind of death ceremony; food offered to a monk

/sɔm ˧na To plant seedlings

˗se |˗sɛ$_{\alpha}$| To insert; to pay back

˗so |˗sɔ$_{\alpha}$| To cook

˧so |˧sɔ$_{\alpha}$| Key

˗tAI$_{v}$ To crawl; to cross over a bridge

˧tAI$_{v}$ Khamti; the Tai people

/tAI$_{v}$ (ex.)(hit)

ᵕtAI$_{v}$ Style, fashion

˗tAU$_{v}$ Tortoise; spinning top; to spit

_tAU$_{v}$ Hot earth in the fireplace, ashes

◡nAm /tAU$_{\nu}$ Water pot

_tAɯ$_{\nu}$ Rectum

\tAɯ$_{\nu}$ To wait to get s.th.

/tAɯ$_{\nu}$ *Prep.* below; to be under

¯tAk (ex.)(to beat)

\tAŋ *Prep.* with

/tAŋ To cook; to organize (as a family)

¯tAt To cut off

_tAt System (espec. digestive, elementary system)

_tAn To close; to prevent; to be blockheaded

¯tAp (ex.)(to grasp tightly all of a sudden)

¯tAm To be short in stature, to be low

_tAm To thrust (as a stick)

\tAm To place, to keep

¯ta Fence

_ta Eye; topic, point; joint of bamboo

/ta To trim a bamboo, a tree, etc. by chopping off the branches

◡ta To challenge

_taI$_{\nu}$ To die; death

/taI$_{\nu}$ To be near

¯taU$_{\nu}$ To inform, announce, to cry (publicly)

¯tak Lap

_tak Imaginary measurement, approximation; leech

¯taŋ To place s.th. above

_taŋ To exchange

\taŋ Road

¯tan To be equal; standard

\tan Class; to raise o.'s neck (espec. reptiles)

/tan To speak

¯tap To slap with the palm of the hand; liver

_tap^{2} (ex.)(rattling noise)

¯tam Punishment

¯tIŋ To be pensive; a tin

ˋtIŋ^{2} (ex.)(knowingly)

¯tIt (ex.)(imitation of a sound)

_tIt To draw

_tIn Leg

¯tIp To be narrow

ˋtIm (ex.)(to be filled upto)

¯ti To clear the jungle, cut the grass; the 5th female child; ¯ti^{2} to walk (Ch.L.)

_ti Place

¯ti$_{\lambda}$k To press, to massage

_ti$_{\lambda}$ŋ To press (down)

ᴗti$_{\lambda}$ŋ To begin; to hit; to begin to eat (Ch.L.)

¯ti$_{\lambda}$t To keep quiet

/ti$_{\lambda}$n To jump

ˋti$_{\lambda}$m To be full

_ti? | _ti?$_{2}$ | Up to the point

_tUI$_{\nu}$ To be reconvalescent

ˋtUI$_{\nu}$ To understand; ˋku$_{\lambda}$n ˋtUI Hermaphrodite

¯tUk To stir

_tUk To beat (as animals or children)

¯tUŋ To jump up

_tUŋ (abusive term)

ˋtUŋ To collect water with a container placed outside; to hold

¯tUt (ex.)(giving away)

¯tUn To come to know, to apprehend

/tUn To be shallow

¯tUp (ex.)(completely filled up)

_tUp Corridor; kind of box

¯tUm Scar

_tUm Kind of box

◡tUm Fisherman, boatman

¯tu To be similar; to become foul, rotten

_tu We = I and he

_nuʌk ˊtu Dove

¯tuʌI$_{\upsilon}$ To be similar to; _kɔŋ ¯tuʌI$_{\upsilon}$ Kind of drum

¯tuʌk To fall

¯tuʌŋ To trap an animal by rope; area, region

◡tuʌŋ To receive a guest; ◡tuʌŋ ˋkhɛ Diarrhoea

¯tuʌt To break wind

ˊtuʌn *Unit* (trees)

¯tuʌp To whip, to beat; to eat up

_tuʌp To get back; to fold

ˋtuʌm (ex.)(bursting sound)

ˊtuʌm To boil in water

¯tu? | ¯tu?$_2$ | 4th female child

_tu? | _tu?$_2$ | Dirt, filth

¯tɯk To attack

¯tɯŋ To be conscious

¯tɯt (ex.)(refusing, scolding, rebuking)

_tɯt = _tIt

◡tɯ To spurn

¯tɯk Mud

_tɯk *Prep.* up to

¯tɯŋ To wish (ill to or luck to s.o.)

ˋtɯŋ To be deep (as water)

_tɯɪ = _tɯt

¯tɯn To scratch

ˋtɯn To be abundant, full of; to light a candle

˜tɛ |˜tɛ$_2$| (ex.)(to touch); ˜tɛ^2 To walk (Ch.L.)

˜tɛU$_v$ To announce or proclaim publicly

˜tɛk To burst out; to germinate

_tɛk Box; to measure

˜tɛŋ *Unit* (a mile); a mile

_tɛŋ Cucumber

\tɛŋ To stab, to pierce

/tɛŋ To choose

_tɛt To be close together

˜tɛn To pulverize, to crumble; to copulate; ˜ɛn ˜tɛn Dwarf

_tɛn Wasp

\tɛn To touch

˜tɛp To cut

/tɛm To write

_tɛʔ |_tɛʔ$_2$| Up to the point

˜tɔ^2 |˜tɔ$_2$| (ex.)(Ch.L.)

˜tɔI To pat, to beat after a fruit with a pole

\tɔI To make a pattern, system, or plan

˜tɔk (ex.)(knocking or striking sound); small rope or lace (of bamboo); to hammer; to print (as literature)

_tɔk *Unit* (a seer)

˜tɔŋ To be bright, clear; to be baldheaded

_tɔŋ Leaf (used for wrapping a.th.), = A. **kalāpāt**

\tɔŋ Brass; to know

/tɔŋ To communicate, enquire

◡tɔŋ Belly

˜tɔt To peck, to bite (as snake or chicken); fish-hook

_tɔt To cast out the fishing net

_tɔn To castrate; a piece

\tɔn To be crooked

/tɔn \I$_{\sigma}$ɔn To ask for, to beg

¯tɔp To reply

_tɔp To mend a hole, support s.th.

¯te |¯tɛ$_{\alpha}$| To start, to begin first

_te _te? |_tɛ$_{\alpha}$ _te?$_{2}$| *(or: the first syllable as extended form of the second (?))* Really, truly

\te |\tɛ$_{\alpha}$| A small mound of earth in the rice-field to prevent the water from flowing

¯to |¯tɔ$_{\alpha}$| A bee; to play; to join the ends of two sticks or ropes; to meet face to face

_to |_tɔ$_{\alpha}$| Body

\to |\tɔ$_{\alpha}$| To weave; to fight (as bulls)

$_{\cup}$to |$_{\cup}$tɔ$_{\alpha}$| To carry off

\tra *(literary)* = \tla

\tla Case, civil suit; rupee

¯tlɯ To ponder, to muse

¯thAI$_{\nu}$ To plough; ploughshare

¯thAU$_{\nu}$ Topic, point; to take or pull out a thread

/thAU$_{\nu}$ To be old

¯thAk (ex.)(to remember)

¯thAŋ To drip, to drop down (as water or rice)

_thAt = _tAt; religious place where statues are kept

/thAm Burrow

¯tha To shave

\tha To prohibit by way of advice

/tha To wait

\thaI$_{\nu}$ (ex.)(gunshot)

¯thaU$_{\nu}$ The whole of s.th.

\thaU$_{\nu}$ (ex.)(shoot)

¯thak To cut (by dao or spade); (ex.) = ¯tAk

_thak To become a layman again after having stayed as a monk in a monastery; single board of a shelf

¯thaŋ Ditch; possibility

\thaŋ (ex.)(hitting sound)

_that = /thAm

¯than Charcoal; kind of palm-tree

/than The place of a deity (A. sthān 'place')

¯thap^2 (ex.)(a noise, e.g. a shot)

¯tham To ask

\tham (ex.)(bursting sound); to prevent

¯thIU Fastened rope; to whistle (= ¯phIU$_{\cup}$)

\thIŋ = \thɯŋ

¯thIt To kick

¯thIn To drive, to ride

¯thIp = ¯thIt

/thIm To throw; /thIm $_{\cup}$nAI$_{\cup}$ ~ /thUm $_{\cup}$nAI$_{\cup}$ Up to the point

¯thi To be thick

\thi Apex, peak

¯thi$_{\lambda}$ŋ To argue

_thi? | _thi?$_2$ | = _ti?

¯thUI$_{\cup}$ (ex.)(to spit)

¯thUk To entrap, to get hold of; to adjust, to fit; should, ought to

_thUk To repair; a copy, transcript

¯thUŋ To mend, repair

\thUŋ Law (traditional)

¯thUp^2 (ex.)(noise of crackling firewood)

_thUp Package

/thUm Piece

¯thu Kind of cooking tool, to stir with this tool

\thu To rub

¯thu$_{\lambda}$I$_{\nu}$ To adjust (o.s.)

/thu$_{\lambda}$I$_{\nu}$ To pull out, to pluck

¯thu$_{\lambda}$ŋ Bag; to explore

/thu$_{\lambda}$n To complete (in counting)

/thu$_{\lambda}$m To be filled up to the brim (said of liquids)

¯thɯ̈t (ex.) = ¯tɯ̈t

\thɯ̈ŋ To rule, to govern

\thɯ̈n To pile up, heap up

_thɯ̈p (ex.)(bursting noise)

¯thɯ To cut (as meat)

ˇthɯŋ Second male child

¯thɯk Male

_thɯk^{2} (ex.)(black)

_thɯt To reach the end

¯thɯn Jungle

¯thɯp Meeting; to get, to find (after searching); (ex.)(the noise of a shot)

¯thɯm To cover with earth

¯thɛU$_{\nu}$ To adjust; a line

_thɛU$_{\nu}$ (ex.)(noise); _thɛU$_{\nu}$ _lɛU$_{\nu}$ To be only a few persons (when expecting many)

¯thɛk (ex.)(bursting sound)

_thɛk To be fit, qualified

¯thɛŋ (ex.)(beating sound)

\thɛŋ To challenge

¯thɛp Stake (in play)

_thɛp^{2} (ex.)(jerking or wincing of a body)

¯thɛm To offer more, to give more; to put water in a vessel

_thɛʔ |_thɛʔ$_{2}$| = _tɛʔ

¯thɔI To shift, make room

¯thɔk (ex.) = ¯tɔk (ex.)

_thɔk *Adv.* up to the end; to bear s.o.'s expenses

˜thɔŋ Prison cell; to bear the expenditure

ˋthɔŋ To push, thrush (purposely)

/thɔŋ To push, thrush (accidentally)

˜thɔt To take out; to draw (as money)

˜thɔp^{2} (ex.)(the sound of steps)

_thɔp To prevent

˜thɔm To hear

˜tho |˜thɔ$_{\alpha}$| Dhal, bean, pea; to push

ˋtho |ˋthɔ$_{\alpha}$| To push

◡nAI$_{\vee}$ This

_nAU$_{\vee}$ To smell, to be putrid

˜nAɯ$_{\vee}$ To stop in any kind of action

ˋnAɯ$_{\vee}$ *Prep.* inside, within

˜nAŋ Skin

_nAŋ To sit

˜nAt To direct, to aim

_nAt = _lAt

_nAn To be straight

ˋnAn To quarrel; to advice in order to prohibit

_mɯ ◡nAn *Adv.* a long time ago, ancient

˜nAp To sleep by closing o.'s eyes

_nAp (ex.)(all of a sudden - dark)

˜nAm Many; to put in position

_nAm To be black

◡nAm *s.* ◡nam

˜na To quarrel; to be thick

ˋna Paddy-field; *interrog. pcle.* (expecting a positive answer)

/na The face

˘na Maternal relatives

¯naI˘ To select, to choose

_naI˘^{2} (ex.)(scolding children for spending money on useless things)

\naI˘ To be moist

/naI˘ Eri silk

¯naU˘ To be cold

_naU˘ A star

˘naU˘ To break by force, to break open

_nak To be black; to beat

\naŋ Denoting a female person: miss/mrs., \naŋ ˘tsɔI˘ Madame; pock; younger sister

/naŋ To be hard

\nan To be slow

¯nap Sword

_nap (ex.)(having control over an animal (?))

¯nam Spike, thorn; horoscope

˘nam Water, *in compounds:* ˘nAm

_nIk Envy, envious talk

/nIŋ Tea; to badger, to vex

¯nIt = ¯ni$_{\lambda}$t (cramp)

_nIn Soil, earth, *also:* ¯lAŋ _nIn

¯nIp To be raw, alive

_nIp Nib (E.)

¯nIm To keep quiet, to be steady

¯ni^{2} (ex.)(the sound of a mosquito)

_ni To be good

/ni Debt

¯ni$_{\lambda}$U˘ To be sticky

¯ni$_{\lambda}$ŋ To press

¯niλt To snap o.'s fingers; cramp, spasm

¯niλn To put

¯niλp To insert

¯nUk Bone

_nUŋ To wear (as clothes)

¯nUt To be worn-out, faded (as colour)

_nUt Bank-note (<E.)

`nUn To be worn-out

¯nUm To be young

¯nu Mouse

_nu To look

`nu Let me...!

¯nuλI To be tired

_nuλk 6th male child; bird; ka _nuλk = ka _nɔk

¯nuλt Beard, moustache

_nuλt To grind

_nuλm To smell

_nu? | _nu?$_2$ | To be fine, smooth

¯nɯk To be lazy

¯nɯŋ To move

/nɯŋ To steam, parboil; the lower pot used in steaming

¯nɯp (ex.)(silent)

¯nɯ *Prep.* over, above

ᵕnɯ Flesh, meat

¯nɯk = ¯nɯk

¯nɯt To feel hot, to be hot

_nɯn Moon, month

¯nɛ | ¯nɛ$_2$ | *Interrog. pcle.*

a ¯nɛŋ To force

_nɛŋ To be red

/nɛŋ To bend up, curve up

¯nɛn To put in between, to dot

_nɛn Demarcation line

/nɛn To be hard, thick

¯nɛp Kind of tweezers

_nɛp Bribe; *unit* (of money)

¯nɛm To put in position

`nɔ |`nɔ$_2$| *Interj.*

_nɔI Mountain; to ask repeatedly in demand

◡nɔI Addr. younger male person in respect

¯nɔk Decomposed foodstuff; rugged cloth; a.th. foul or rotten; hump (of buffalo)

ka _nɔk Outside, beyond the jurisdiction or power of

¯nɔŋ Pond; to be heavy in weight; ◡nAm ¯nɔŋ Pus

_nɔŋ The calf of the leg

◡nɔŋ Younger brother or sister

¯nɔn Worm

`nɔn To sleep

¯ne |¯nɛ$_\alpha$| To guide, to lead

¯no |¯nɔ$_\alpha$| Shoot, sprout (e.g. of a bamboo); bamboo curry

¯pAI$_\vee$ To turn; to hand over; to finish

_pAI$_\vee$ To go quickly

¯pAU$_\vee$ To blow; to consult a diviner to drive away a disease; ¯pAU$_\vee$ `phAI$_\vee$ To make a fire

`pAɯ$_\vee$ To put or cover s.th. with grass

◡pAɯ$_\vee$ To guard, to watch; _lUk ◡pAɯ$_\vee$ Daughter-in-law

`pAŋ To flow down

◡pAŋ To be useless

¯pAt To cut off a layer from the top of s.th.; to cut (as slices); to sweep

_pAt To hang over a line without fastening; to wind thread or yarn into a skein or ball

¯pAn Circle; to encircle

_pAn To distribute

\pAn To bundle

/pAn To prepare rice or cake

\pAm To add; to heap up (= \pUm)

/pAm To fell, to slaughter

¯pa To be full of s.th.

_pa Fish

\pa To be concerned with; to influence

/pa This (way); to side with

◡pa To carry on the back; basket

¯paI◡ To chop

_paI◡ To end; the end; to run away, to elope

/paI◡ To greet; to pray

¯paU◡ To scold, to abuse

/paU◡ To cut off

¯pak To fix a post; mouth; 100

_pak To look into, to peep

¯paŋ Open field

_paŋ Personal, own

\paŋ Mithun; hare; to request, to invite

/paŋ Appendicitis (?)

¯pat (ex.)("you can talk as much as you like, but it'll never do like this")

¯pan Betel leaf

_pan To be equal in age or in standard

\pan To touch; to obstruct

/pan To prevent the water from flowing in a particular way; to place paper or leaves in a basket in order to prevent the rice from dropping; to construct a dam

◡pan Dish, bowel; to graze, touch slightly

_pap Book

_pa? |_pa?$_2$| To carry on the back (= ◡pa)

\pI$_{\sigma}$a To show

/pI$_{\sigma}$a Goat

/pIU$_{\upsilon}$ To be cut off, broken off

¯pIk Feather

_pIk To separate away, to place aside

¯pIŋ ¯hu Ear

_pIŋ Water leech

/pIŋ To burn, to roast meat over a fire

¯pIt To pluck

_pIt To kick; to miss

¯mɔ? ¯pIn |¯mɔ?$_2$| Flower ornaments on a cloth

/pIn To reverse, to throw o.'s head back

◡pIn To accuse, to blame

¯pIp To peep

_pIp To twinkle (said of eyes)

¯pi Flute; to complete; to be complete; don't... (*neg.impv.*)

_pi Elder brother or sister; year

\pi To be fat

/pi Pen, feather pen

¯pi$_{\lambda}$U$_{\upsilon}$ To be happy

_pi$_{\lambda}$U$_{\upsilon}$ Cave, hole, tunnel

\pi$_{\lambda}$ŋ To be equal, level, on the same level

¯pi$_{\lambda}$t Duck

_pi$_{\lambda}$n To be able, to become

\pi$_{\lambda}$n ¯phi A boil

˗piʎp To come close to

˗piʎm = ˗piʎp

_pi? | _pi?$_2$ | To finish (Ch.L.)

ˋpUɔa To grow up

ˋpUIᵥ Kind of reed

˗pUk To plant

_pUk Chapter; group

˗pUŋ History, story

_pUŋ To throw, thrust (as a spear); to crawl

ˋpUŋ (ex.)(to fall); bomb

˗pUt To uncover

_pUt To take the place of (as a substitute or heir)

_pUn^2 (ex.)(muttering)

ˋpUn To come out (as water from a spring); to fall down (e.g. rice, water)

˗pUp^2 (ex.)(wet, drenched)

_pUp To accord

ˋpUm To keep in one place, to heap up, collect

˗pu Grandfather

_pu Crab

ˋpu Moss

/pu To be blunt

ᵕpu Neutral; unmarried (as a man)

˗puʎIᵥ To be worn-out, loose

˗puʎk To build, to construct; to heap up; termite

_puʎk To bundle, to bundle up

_puʎŋ To place

˗puʎt To dissolve a vow or contract; to open a dam

/puʎn *Adv.* there, that place

ᵕpuʎn To overtake, to advance

_puʎm The big portion of an object (e.g. head, stick)

˨pɯŋ To own, to bring under o.'s command

_piˌn _pɯ To come to a conclusion

_pɯŋ Likewise

_pɯn Other people

¯pɯʔ |¯pɯʔ$_2$| To be fed up

¯pɛ |¯pɛ$_2$| (ex.)(crying)(Ch.L.)

˨pɛ = ˨pIₒa

_pɛU$_ᵥ$ To disappear, go off, fly off, flee away; to go or ride quickly, to galop

¯pɛk To be puzzled; to take s.th. by mistake

_pɛk To be disorganized, to become extinct

¯pɛŋ To control; to own

_pɛŋ To do regularly; to do s.th. in the same measure or standard

˨pɛŋ To love

/pɛŋ To be warped, distorted, twisted out of shape

¯pɛt To be attached; attachment; 8

_pɛt To explain, to give the meaning of

¯pɛn To explain; to fry eggs

_pɛn To expose

/pɛn Wooden plank

_pɛp To come close

¯pɛm = ¯piˌm

¯pɔI$_ᵥ$ To send; to release

˨pɔI$_ᵥ$ Festival; bead

¯pɔk To peel

_pɔk To come back, return; to be a maximum quantity of fruits on a tree

¯pɔŋ To be a hole; a hole; to understand, grasp the meaning of s.th.

˨pɔŋ To add s.th., to join; to swell (as a boil)

/pɔŋ *Adv.* about; a section or stretch between two joints

ᵕpɔŋ To side with, take s.o.'s part

¯pɔt Shortness

_pɔt To clean utensils by scraping; to clean a.th.

¯pɔn To give through a hole

/pɔn To feed

_pɔp To be turbid, disturbed (as water creating waves)

_pɔm = ¯pɛm

/pɔm Pump (E.)

¯pe |¯pɛ$_{\alpha}$| To have paid back o.'s debt; to end or fulfill o.'s obligation

\pe |\pɛ$_{\alpha}$| Flute-like musical instrument; bamboo raft

/pe |/pɛ$_{\alpha}$| To be bent, slanted, to be outbalanced

◡pe |◡pɛ$_{\alpha}$| To win (over)

¯po |¯pɔ$_{\alpha}$| Father

_po |_pɔ$_{\alpha}$| Bodh-tree, pipal tree, Ficus religiosa

\po |\pɔ$_{\alpha}$| To be sufficient, enough

◡po |◡pɔ$_{\alpha}$| To beat, kill (as a chicken)

¯plo *in:* ¯plo ¯mo ||¯plɔ ¯mɔ|$_{\alpha}$| Onion; ¯plo _tsIŋ |¯plɔ$_{\alpha}$| Garlic

\phAI$_{\nu}$ Fire; to twist a rope or thread around s.th.

¯phAU$_{\nu}$ To add s.th. more

¯phAɯ$_{\nu}$ Who?

\phAɯ$_{\nu}$ = ¯phAɯ$_{\nu}$

¯phAk Curry, food ingredients

¯phAŋ To put under earth, to bury

_phAŋ To dash into

¯phAt To be rough or astringent (as taste)

_phAt To whip, beat

¯phAn To dream; ¯phAn ¯hAn A dream

\phAn Clan

_phAp To contest (with reference to cocks or hens), to attack

_phAm To attack

¯pha Wall; to go through; to split (as bamboo by dao)

\pha To influence

/pha Cloth; to stop, to give up

ᴗpha Dao, sword; sky, weather

¯phaIᵥ Precipice

\̇phaIᵥ To beckon; a hawk; a demon

/phaIᵥ To walk; to pass stool

ᴗphaIᵥ To chop off; kind of basket; playing cards

¯phaUᵥ To sprinkle, splash (by force), to throw stones

\phaUᵥ To cheat

¯phak A packet; ¯phak _mIt Dao sheath

_phak Bamboos used as planks in the house; to cut into pieces; to get separated

¯phaŋ Plough

\phaŋ Intervention

/phaŋ To thrush; kind of intoxicant (A.bhāṅ)

¯phan To be poor; to cut or peel fruits

_phan To itch

\phan Roe

_phap To cheat

\pham To cheat, to mislead

\phIᵤa To clear o.'s nose

¯phIUᵥ The cuticle or epidermis; to whistle (= ¯thIUᵥ)

\phIUᵥ To wipe off, to lessen, to reduce

\phIŋ ka /ni To take opium (in mixing with water)

¯phIt To be wrong; error

_phIp To blink, to twinkle

\phIm To reduce a quantity (as of water)

¯phi Deity, spirit

_phi = \phIᵤa

/phiˌU˅ To remove tools and things (in order to clean)

¯phiˌt To be hot (said of chillies)

¯phiˌn Kind of cotton cutting tool

/phiˌn To be expert, experienced

_phiˌp = _phIp

\phU˳a To be born; \phU˳a ha ˅na Dto.; \phU˳a *Interj.*

\phUI˅ \lɛm To check, to search, find out

¯phUk To tie

_phUk Mat (of cane or bamboo)

¯phUŋ Flock, herd; to mend, to stitch

\phUŋ ¯saI˅ Ornaments, flowers, tassels, etc. for beautification

¯phUt To bulge, protrude; to rise out of, to emerge, to come out

¯phUn *Unit* (clothes, books); to tread on, to trample

\phUn Fuel

˅phUn To turn (to the other side, the pages of a book)

¯phUp (ex.)(to spit)

\phUm The reed of a loom, A. r̃ac

_phu To blow

\phu To float

/phu Male; great person, wealthy, well-to-do person

\phuˌI˅ \lɛm = \phUI˅ \lɛm

\phuˌŋ To spread out (as flowers, leaves, feathers)

˅phuˌŋ To splash

_phuˌt To boil

¯phuˌn Rain

¯phuˌm Hair

¯phu? |¯phu?$_2$| (ex.)("It's okay, don't worry")(Ch.L.)

¯phɯŋ To weave, mend, stitch

/phɯŋ Bee

¯phɯ Bush; a bamboo frame to make the soil muddy

\phɯ Bush; to spread (as an epidemic disease)

ˋphɯI$_{\cup}$ Tea branch, tea bush

_phɯk To show off, to window-dress (as to s.o.)

ˋphɯŋ Bush; empty rice husks which have never contained a grain of seed, straw

_phɯt = _phɯk

¯phɯn A kind of bamboo receptacle for preserving food

_phɛ |_phɛ$_{\alpha}$| (ex.)(red)

ˋphɛ = ˋphI$_{\sigma}$a

¯phɛU$_{\cup}$ To be naughty

¯phɛk To dissect

_phɛk = _pɛk

¯phɛŋ To come near to (as animals)

ˋphɛŋ To be useless, invalid, rotten, spoiled

_phɛt To tell lies

¯phɛn *Unit* (flat objects)

¯phɔ |¯phɔ$_{2}$| (ex.)(the murmuring of a river); to come out, to appear (as animals enraged or in rut)

_phɔ |_phɔ$_{2}$| (ex.)(snoring)

¯phɔI$_{\cup}$ Mole, spot; kind of grass

ˋphɔI$_{\cup}$ To narrate

¯phɔk To sprinkle; stupid person

¯phɔŋ A float; dust; raft

ˋphɔŋ Wave

_phɔt To wind, reel, spin; to intertwine, intertwist

_phɔp To race; a race

¯phe |¯phɛ$_{\alpha}$| To distribute; to disclose, to reveal

_phe |_phɛ$_{\alpha}$| To deliver (in case of animals)

ˋphe |ˋphɛ$_{\alpha}$| Suffering, pain; punishment; ¯phUn ˋphe Astrological literature

/phe |/phɛ$_{\alpha}$| To break; plate

me $_{\cup}$phe (< _me) |$_{\cup}$phɛ$_{\alpha}$| Prostitute

¯pho |¯phɔ$_{\alpha}$| Husband; to put in hot ashes for roasting

˘pho |˘phɔ$_{\alpha}$| Group

˘phra *(literary)* = ˘phla

˘phla God

¯mAI$_{\nu}$ Thread

_mAI$_{\nu}$ To sling a cloth over the shoulders

/mAI$_{\nu}$ To burn; *adv.* here

∪mAI$_{\nu}$ Wood

_mAU$_{\nu}$ To be light (in weight)

¯mAɯ$_{\nu}$ To be new; to fine, to charge

_mAɯ$_{\nu}$ Leaf,page

˘mAɯ$_{\nu}$ You (sg.)

pa /mAɯ$_{\nu}$ To be a fool, stupid

¯to ¯mAk To play football

_mAk Fruit; bullet

_mAŋ To whip, beat

¯mAt To cut slightly, to scratch (into o.'s flesh); slight cut or a scratch; flea

_mAt To remember

¯mAn To mix with; to be barren

_mAn To sprain

˘mAn Kind of root fruit; he

/mAn *Adv.* there; cloth

¯mAm Food (Ch.L.); to plug a hole

¯ma Dog

˘ma To come

/ma To become mad

∪ma Horse; to be naughty

¯maI$_{\nu}$ To choose; to eat or drink with o.'s rice or principal food

_maI$_{\nu}$ To pluck off, to weed

˘maI$_{\nu}$ Kind of tree

/maI$_{\nu}$ Widow, widower

¯maU$_{\nu}$ Young man

/maU$_{\nu}$ To break, to take out

∪maU$_{\nu}$ = /maU$_{\nu}$

¯mak To cut (by dao), to chop; male organ

¯maŋ To be separated from

_maŋ To be less in amount; to be thin; leaf (of paper)

/maŋ To break

¯man Looking-glass; to be exact, right

_man Burmese; to augur, divine

/man Village

¯map = _phap

_map^{2} (ex.)(very bright)

˘mI$_{\sigma}$a ¯phɔŋ House-like construction to lay out the corpse of a deceased monk; a cell for meditation; a ˘mI$_{\sigma}$a To please, to grace

/mIU$_{\nu}$ = /pIU$_{\nu}$

/mIŋ To break

¯mIt To bend, to twist

_mIt Dao; *unit* (bundles of thread); waterdrop

¯mIn To twist

˘mIn Flea

¯mIp To press

_mIp To concede, give concession, allow

¯mi A bear; to look into, peep; to show; to guide, to lead

˘mi To be rich; ˘mi^{2} = ˘khi^{2}

/mi Charcoal; to be blackish

˘mi$_{\lambda}$U$_{\nu}$ Kind, variety

¯mi$_{\lambda}$t Fish-hook

¯mi$_{\lambda}$n To smell

_miλn To fly

¯miλp To hide (= ¯mɛp)

_miλp = ¯miλp

_mi? |_mi$ʔ_2$| To put out a lamp

_mUk A group

_mUŋ A basket

\mUŋ To make a roof, to thatch

¯mUt = ¯nUt

_mUt To be familiar with

¯mUn Shoot of cane for vegetable; 1o.ooo

_mUn To be slippery

\mUn To open o.'s eyes; /khAU$_ν$ \mUn Biscuit, cake

/mUn *Unit* (maund)

¯mUp To beat up

¯mu Pig

\mu To get excited; to be smoky, cloudy, to feel giddy

/mu To be stout, fat

¯muλI$_ν$ Mist, fog

⌣muλI$_ν$ A harrow, A. ⌣mai; to crash, to crush

¯muλk Hat, cap; to hide, to put under or inside

/muλŋ Insect

¯muλt To finish

_muλt End

_muλn Personality, personal influence

/muλn Otter

¯muλp To beat; to argue

_muλp To make a hem

_muλm To be soft

/mɯŋ Pot, kind of pot, tea-kettle

⌣mɯŋ To rear, take care

¯mɯ To be fed up

_mɯ ◡nAn *s.* ◡nAn

◝mɯ To go home; hand; ◡lIU◡ ◝mɯ A finger

◡mɯ Shift (in work); *unit* (time)

◝mɯŋ Country

¯mɯn To hide o.s.

¯mɛU◡ To peep

/mɛU◡ Cat

¯mɛk To carry a weight

¯mɛŋ To distribute

◝mɛŋ A fly

◡mɛŋ = ◝kɛŋ

_mɛt To be pure, fine, refined

¯mɛn To be intelligent

/mɛn Porcupine

◡mɛn To be industrious, laborious

¯mɛp To hide (= ¯mi$_{\lambda}$p)

_mɛp To flash (lightning)

¯mɛm To hide (Ch.L.)

_mɛm To be together (Ch.L.)

◝mɔ |◝mɔ$_2$| *Interj.*

¯mɔI◡ Pubic hair

_mɔI◡ To be exhausted, to faint

◝mɔI◡ To fade (as colour)

¯mɔk A blossom, a flower; a bamboo tube as container

¯mɔŋ To make a hole

◝mɔŋ Bone disease

¯mɔt To be blind; blindness

_mɔt Woodworm

¯mɔn To put under or in s.th. (in the sense of hiding or searching s.th.)

_mɔn Arum

/mɔn To behave in a naughty or childish way

¯mɔp To break

_mɔm To crush

/mɔm A candle (< A. **mam** Bee's wax)

¯me |¯mɛ$_{\alpha}$| Mother; to show, guide

_me |_mɛ$_{\alpha}$| Female

\me |\mɛ$_{\alpha}$| To repair, to reconstruct; \me ¯phɔŋ = \mI$_{\sigma}$a ¯phɔŋ

/me |/mɛ$_{\alpha}$| Kind of vessel; clay

¯mo |¯mɔ$_{\alpha}$| Spring, mine; to sing; literary composition

_mo |_mɔ$_{\alpha}$| Lotus

\mo |\mɔ$_{\alpha}$| To be violet

/mo |/mɔ$_{\alpha}$| Container; /mi /mo |/mɔ$_{\alpha}$| Soot caused by the action of fire on pots

¯lAI$_{\nu}$ To float, to drift

¯lAU$_{\nu}$ To urge; a region, plot of land

_lAU$_{\nu}$ To tell, inform

\lAU$_{\nu}$ Kind of shrub; *unit* (for posts or stakes)

/lAU$_{\nu}$ Alcohol, liquor

a \lAɯ$_{\nu}$ Which?

¯lAŋ Back

_lAt To be or bec. unhealthy or sick due to hard labour; consequent effect, aftermath (= **_nAt**)

¯lAn To sag down, to sink

¯lAm To pass into (e.g. a nail; also a foot in what does not look like mud)

\lAm *Unit* (rods, sticks, bamboos)

˗la To play (with a child)

ˋla To be necessary, be in need

ˊla To be late

˘la To be spread over

¯laIᵥ Ditch

˗laIᵥ To change, exchange

ˋlaIᵥ Idea, concept; to be colorful

ˊlaIᵥ To come, to drop in

˗laUᵥ² (ex.)(bushy appearance of the waving tail of an animal; a.th. bushy)

ˋlaUᵥ To stroll, roam around

ˊlaUᵥ Water gourd

¯lak Any wood or piece of bamboo used for winding thread or fencing

˗lak To steal; **˗lak ˘nAIᵥ** This time

˗laŋ Place under the house

ˋlaŋ To clear

ˊlaŋ Tin (A. **rān̈**)

˘laŋ To wash

¯lan Grandchild

˗lan To be soft

ˋlan To fell

˘lan A number between 10.000 and 100.000 (Ahom *lān* 100.000)

¯lam To cook or boil in a bamboo container

˗lam To rope, to chain (as animals)

¯lIUᵥ To spin

˘lIUᵥ Very soft cotton, kapok; **˘lIUᵥ ˋmɯ** A finger

¯lIk To go by a different route; to bec. crooked (as a nail)

˗lIk Script, letters, literature; **¯mak ˗lIk ~ ¯tsɔk ˗lIk** To recompose

¯lIŋ To depart (from e.o.)

ˋlIŋ Monkey

¯lIt² (ex.)(narrow thing)

_lIt To single or pull out (as thread or wire)(= ¯lɯt)

ᴗlIn Tongue

_lIp (ex.)(the glimpse of s.th. quickly passing over)

¯lIm To spin (round, as a top)

/lIm Arrow

¯li Shoot of plants; the central portion of any instrument

_li Bile

/li To depart on the way, to go in a different direction

_liλUᴠ To be single

ᴗliλUᴠ *Unit* (counting by fingers)

¯liλk Iron

_liλk To be mean

ᴗliλŋ To give or offer food; to adopt a child, to look after s.o.

_liλt = ¯lɯt

_liλp To overtake

¯lUk To mix (as liquids), to stir

_lUk Offspring, child; to stand up, rise up, get up (from sitting, sleeping, etc.)

\lUŋ Office

¯lUt Small portion of opium for a smoke

_lUt To smoke (as a cigarette)

/lUn To be scratched off (as skin)

¯lUp To swarm, to infest

_lUp Massage; a compromise

¯lUm To drink up in one draft

_lUm Bundle or bunch of flowers, group of trees, etc.

\lUm To forget

/lUm = ¯lUm

¯lu To offer (to a deity), sacrifice; *unit* (flowers)

\lu To become insane, mad

/lu To print, to colour

ˇlu To be broken, out of order

¯luλIν Kind of mill for grinding cereals

/luλIν To be together, to follow

_luλk To pour hot water over a.th.

¯luλŋ Elder, big

\luλŋ To descend

/luλŋ Round winnowing basket without holes

¯luλn To unfasten, to untie

¯luλp To cover, to roof

¯luλm To be loose

\luλm Wind

/luλm To be completely covered

ˇluλm To fall down

_lɯt To rattle (in o.'s throat), to choke

_lɯn To take advantage of s.o.'s kindness

¯lɯp (ex.)(to retreat suddenly - as an animal into a burrow)

¯lɯ Surplus

_lɯ To saw, to cut

¯lɯŋ To be yellow

_lɯŋ 1

¯lɯt To tear off, break off (= _liλt)

_lɯp To soothe

¯lɯm Excess, more

/lɯm To be smooth

¯lɛUν² (ex.)(watery)

_lɛUν² = ¯lɛUν²

¯lɛk To be cunning; powdery substance after pounding

_lɛk To exchange; to purchase

¯lɛŋ Vehicle

\lɛŋ To be clear, to be cleared, to be bright

ˇlɛŋ To give importance to

_lɛt^{2} (ex.)(to disturb)

_lɛn To run

¯lɛp To be cunning

_lɛp To be well-dressed, to be tidy

¯lɛm To be cunning, to be intelligent

ˋlɛm To show, to look

/lɛm Lamp (E.); *unit* (cigarettes)

¯lɔI$_{\nu}$ To be relieved

ˋlɔI$_{\nu}$ To swim

¯lɔk To frighten s.o.; division or sub-part of a paddy-field

_lɔk To peel off the skin; to disguise, to turn into another form, to metamorphose

¯lɔŋ To put under or underneath (as a support)

_lɔŋ *Prep.* concerning; way

ˋlɔŋ To run (as colour in washing); to overflood

/lɔŋ A clove (A. lan̓)

¯lɔt Still-birth

_lɔt To be free, off, to be released

_naU$_{\nu}$ ⌣lɔn Starry sky

mɔ ¯lɔm Gimlet

_lɔm To be round

⌣lɔm To fence

¯le |¯lɛ$_{\alpha}$| To stroll around

_le |_lɛ$_{\alpha}$| To lay

ˋle |ˋlɛ$_{\alpha}$| To lick

¯lo |¯lɔ$_{\alpha}$| To pour (out, down)

_lo |_lɔ$_{\alpha}$| To roll, push, shove

ˋlo |ˋlɔ$_{\alpha}$| Wife of elder brother

¯hAI$_{\cup}$ To beat or knock by sounding; upper pot used in steaming

_hAI$_{\cup}$ Jhoom

`hAI$_{\cup}$ Kind of louse or mite

/hAI$_{\cup}$ To cry, weep

¯hAU$_{\cup}$ Louse; to bark

`hAU$_{\cup}$ We two = I and you

/hAU$_{\cup}$ Hook-worm

ᴗhAU$_{\cup}$ To sweat, to feel hot

/hAɯ$_{\cup}$ To give, to offer

¯hAk To break asunder

`hAŋ Nest

/hAŋ To be nasty

¯hAt Affluent, rivulet, brook (as tributary, e.g. in the paddy-field)

_hAt To tie (e.g. a belt); to stop or interrupt o.s. (in talking, thinking, etc.)

¯hAn To see

¯hAp To be ferocious

¯hAm Testicles

`hAm To whip, beat; to take all; to wrap up, roll up

ᴗhAm Insanity

¯ha To be about to, to be imminent

_ha To blow, huff, puff

`ha Both of us

/ha 5; to tolerate

¯haI$_{\cup}$ To lose; to die

`haI$_{\cup}$ To be defeated; ᴗmAI$_{\cup}$ `haI$_{\cup}$ Kind of tree

ᴗhaI$_{\cup}$ To be furious, ferocious; to be old and worn-out

`haU$_{\cup}$ A bar; ᴗmAI$_{\cup}$ `haU$_{\cup}$ Kind of tree

/haU$_{\cup}$ To be arrogant, proud

_hak To love; root (of a tree); to vomit; n. vomit

¯haŋ Tail, end

_haŋ Picture

ˋhaŋ To roast, dry on fire (e.g. wet clothes)

/haŋ Storey; to put a trap; to make preparations

¯han To be courageous; reddish paint, vermilion

_han Small stinging insect

ᵕhan Stairs, stone stairs, storey

¯hap To close, shut; to carry on a shoulder pole

_hap To take s.th. offered

¯ham To carry on the shoulder

ˋham To be disorganized; to give up; to be barren (as soil); to be hampered to do s.th.

/ham T· forbid

¯hIŋ Bangles (put around the feet in dancing); kind of medicine

¯hIt Ringworm

_hIt To be greedy

¯hIn Stone, pebble

¯hIp To be narrow, tight; to press in between

_hIp To be poor

¯hIm To snatch

¯hi Vagina

ˋhi To be long

¯hiλUᵥ To whither away; to be thin, meagre

_hiλUᵥ Trap

ˋhiλUᵥ The wild cardamon

me ¯hiλk Ice; hill storm; *also:* ma ¯hiλk

¯hiλŋ 1000

¯hiλt To do; mushroom

¯hiλn Kind of animal (weasel?)

ᵕhiλn To stop crying

/lIm ¯hiλm Spike-arrow (of iron), a.th. with a spike

¯hUk Loom; ¯ki ¯hUk Handloom

˜hUŋ Evil spirit; ˜hUŋ ˊkiλU$_{\upsilon}$ (abusive term for a naughty boy); ˋluλm ˜hUŋ Cyclone

ˋhUŋ Trunk; flower shoot; kind of tree

˜hUt To shrink

_hUt To smoke (as a cigarette); to suck

˜hUn _haŋ Portrait, image

ˋhUn To be wrinkled; ˜ho ˋhUn To get annoyed

ˊhUn To roll up cloth, pant, etc.

˜hUp To close; to be tight, to curl, to coil

_hUp To collect

˜hUm To like, to be eager, to be keen to do

ˋhUm To roll

˜hu Ear (= ˜pIŋ ˜hu); ˜hu ˜khAU$_{\upsilon}$ The knee

ˋhu Hole

ᴗhu To know, understand

˜huλI$_{\upsilon}$ *Unit* (pieces)

ˊhuλI$_{\upsilon}$ Rivulet, river

˜huλk 6

_huλk Tadpole; to grow

˜huλŋ To rumour; a rumour

_huλŋ To fall down (as fruits)

˜huλt To sprinkle

˜huλn To return, go back

˜huλp To jump over

_huλp To meet

˜huλm To cover with a.th.

_huλm Shade

ˋhuλm To dab (with s.th. soft)

˜hɯŋ To delay

ˋhɯŋ To glow

˜hɯt (ex.) = ˜thɯt

ˉho ˋhɯ̈n = ˉho ˋhUn

_hɯ̈p To run after, to chase s.o.

ˉhɯ̈m To be keen, interested

ˉhɯ To sweat

_hɯ To be bright, enflamed, to glow

ˋhɯ *Interj.*

ˋhɯI$_{\nu}$ *Interj.* hallo!

_hɯŋ To be oblique, to be inclined

ˉhɯt = ˉhɯ̈t

ˋhɯn House, home

_hɛ |_hɛ$_2$| To pass stool (Ch.L.)

_hɛk To start with; to dry (mixed opium)

ˋhɛŋ Strength

ˊhɛŋ To be dry, dried

_hɛt Scarcity, difficult time, drought

ˉhɛn To look upwards

ˊhɛn To be laborious

ˉhɛp To lose o.'s voice; to contract, shrink (after hav. bulged)

_hɛp To press, to squeeze

ˋhɛm To start with, to get ready; (ex.)(clearing o.'s throat)

_hɔ |_hɔ$_2$| To stop a cow by calling _hɔ "stop!" (= "go slow")

ˉhɔI$_{\nu}$ Snail

ˋhɔI$_{\nu}$ Mark; times (how many - ?)

ˊhɔI$_{\nu}$ To hang up

ˉhɔk Spear; to bec. grey (as hair)

_nɛŋ ˉhɔŋ To be dark red, maroon-colour

_hɔŋ Channel for irrigation, drain

ˋhɔŋ To support (with s.th.)

ˬhɔŋ To summon, call

_hɔt To pull out (a.th. from a.th.), to extract

ˉhɔn Crest (of cock)

ˍhɔn		To loiter about; to sieve
ˋhɔn		Cream (of milk); pieces of curry
˘hɔn		To be naughty
¯hɔp		To collect
ˍhɔp		Meeting; *unit* (counting rounds)
¯hɔm		Scent; to collect
ˋhɔm		*Adv.* in collection
¯he	$\lvert \bar{}\text{h}\varepsilon_{\alpha} \rvert$	To be wild, untamable
ˍhe	$\lvert _\text{h}\varepsilon_{\alpha} \rvert$	To be or become loose-fitting (as clothes)
ˊhe	$\lvert \acute{}\text{h}\varepsilon_{\alpha} \rvert$	To pour out water
˘he	$\lvert \breve{}\text{h}\varepsilon_{\alpha} \rvert$	To obstruct, prevent
¯ho	$\lvert \bar{}\text{h}\mathfrak{o}_{\alpha} \rvert$	To tie up in bundles, to wrap; head
ˍho	$\lvert _\text{h}\mathfrak{o}_{\alpha} \rvert$	To leak
ˋho	$\lvert \grave{}\text{h}\mathfrak{o}_{\alpha} \rvert$	To recite, to talk; to foretell
ˊho	$\lvert \acute{}\text{h}\mathfrak{o}_{\alpha} \rvert$	To drive (off, away)